

UNSW MATERIAL SCIENCE & ENGINEERING BUILDING



PROJECT DETAILS

PROJECT LOCATION:
Building E10 – Gate 2, UNSW
Campus High Street,
Kensington Sydney

COMMENCEMENT DATE:
September 2013

COMPLETION DATE:
February 2015

TYPE OF CONTRACT:
Design & Construct

CONTRACT VALUE:
\$11 Million +

GROSS FLOOR AREA:
23,000 sqm

PROJECT MANAGER:
Frank Palamara

**CONSTRUCTION
MANAGER:**
Paul Logie

OVERVIEW TRADE PACKAGE

This building contains highly sensitive research and teaching laboratories, along with UNSW administrative offices and student work place space's.

Integrated office and laboratory areas will ensure UNSW's collaborative teaching and learning, and the building will also feature research areas including traditional, clean, chemistry and electron microscopy suite laboratories. The building will initially cater for up to 160 students and 140 staff with capacity for a further 144 staff and students.

COMMERCIAL FACTORS

The contract works include the supply, delivery, installation, commissioning, testing, certification and warranty of the electrical services as specified and indicated on the drawings and specification.

- Substation & Incoming HV Feeders (connection to UNSW network)
- Main Switchboards and Distribution Boards
- Consumer Mains & Sub Mains & Busduct
- UPS Systems for the Communications rooms
- Power Factor Correction
- Diesel Generator (650KVA)
- Earthing

- General Lighting & Exit and Emergency Lighting
- Dynalite Lighting Control
- General Power
- Power Filters
- Cable tray and Containment Installation
- Lightning and Surge Protection
- Security / Access Control / CCTV IT and Data

COMMUNICATION

- Audio Visual Systems
- MATV
- Metering
- Fire Rating (all electrical cupboards floor-floor)
- Skirting Duct & Skirting Duct to Overhead Services Racks
- Co-ordination with all other trades (not limited to other Services)
- Training & Operating and Maintenance Manuals
- Building Testing, Commissioning and Tuning

PROJECT CHALLENGES

- High detailed coordination of services in 3D Revit format.
- Used to ensure all services would work between the office and laboratory interfaces
- Major issues with the changes of laboratory equipment and major load increases which impacted the maximum demands for the HV substation and Main switchboards.
- Star Group was to ensure that the increase in loads was accommodated in upgrade of transformers and associated switchgear.

PROJECT SPECIFICS

- The Materials Science Building and will consist of 23,500 square metres of space.
- Overall the building is nine levels; it will include a basement featuring specially-designed suites to house highly-sensitive research equipment, as well as administrative spaces, teaching and learning spaces and public spaces.

