F.C. O'NEILL, SCRIVEN & ASSOC. LTD.
Consulting Engineers

UNIVERSITY COLLEGE of CAPE BRETON
STUDENT RESIDENCE

Total Beds .....……..... 127
Total Project Construction Cost $3,200,000.00
Electrical Construction Cost ….. $210,000.00
Mechanical Construction Cost ...…. Unknown
Construction Time .....……...….... 22 weeks
Client …....University College of Cape Breton
Attn: Mr. Don MacIsaac, P. Eng.
Director, Buildings & Grounds

Construction Manager
Mr. Ken Baker, UCCB
Architect Trifos Design Consultants

Mechanical Consultants
F.C. O'Neill, Scriven & Associates Limited
Electrical Consultants
F.C. O'Neill, Scriven & Associates Limited

The University College of Cape Breton's New Student Residence consists of 31 apartment units, housing 127 beds. The project was constructed along a modified "design build" process wherein the client accepted lump sum tender submittals based upon a conceptual design brief. The client's consultants who worked in concert with the successful trade contractors then provided final design and working documents. This process differed from conventional "design build" projects in that the contractors, while bidding along a design build scheme, did not actually produce the final design. Cooperation between the client, the consulting team, and the contractors, was essential in bringing the project to a successful completion.

In addition to the difficulties inherent in the modified design build process; the project was further challenged by a restricted time schedule. The consultants had only 6 weeks to complete the working drawings, and the contractors were afforded only 22 weeks from the time the site was cleared to the moving in of the occupants. Once again, the co-operation between all members of the project team was instrumental in meeting the imposed deadlines.

The electrical systems in the premises consisted of the normal apartment/residential type systems. These were augmented by an enhanced communications and data network that was more conducive to a university environment and which put network capabilities at each bedside. In addition, life safety systems were a priority for the client, which resulted in an addressable fire alarm system with piezo signaling devices in each bedroom.

The mechanical systems in the premises were also designed along the requirements of normal apartment/residential occupancy, albeit the installation and fixturing were more inclined to be along the lines of an institutional standard. The mechanical systems were augmented by in-floor radiant heating in all apartment units, centralized core area ventilation schemes, and heat recovery units in all apartments. As noted previously, life safety was a priority with the client that resulted in the design and installation of a full sprinkler system throughout the complex complete with a diesel driven fire pump.