

Halifax condo makes good use of concrete

By Lynne Wells
Contributing Writer

A new condominium development in downtown Halifax, Nova Scotia is being built using two established concrete building systems: ARXX Wallsystem and the Hambro composite floor system. The Pauley Developments Inc. project includes a seven-storey condominium and two rows of townhouses.

Pinnacle Agencies, based in Dartmouth, N.S., is a manufacturers agent for Hambro. Pinnacle's Mike O'Connell says Pauley Developments chose the Hambro composite floor system because it was the best marriage of floor and wall systems for the project. The buildings were constructed using the ARXX Wallsystem, an ICF (insulated concrete form) building system.

There are a number of reasons why the Hambro system works well in this project, O'Connell says. "It has a low sound transmission rate and a high fire rating, so it's ideal for multi-tenant buildings. The system is easy to install and it offers superb value."

According to O'Connell the Pauley Developments project is the largest Hambro project in Nova Scotia.

The Hambro composite floor system is adaptable to all types of construction (i.e. masonry, steel studs, steel frame, poured in place and precast concrete) as well as wood construction. Hambro is well suited for all types of applications ranging from low-rise housing to multi-story residential, commercial and institutional facilities.

Hambro combines composite joists with poured concrete,

developing a hybrid concrete/steel T-beam in one direction, and integrated with a continuous one-way slab in the other direction. The bottom chord acts as a tension member in the concreting stage and during the service life of the floor. The web system tying top and bottom chords together consists of bent rods and resists vertical shear in a conventional truss manner.

Hambro joists are available in three different series: the D-500 system using reusable Rollbars and plywood forms; the MD-2000 system using permanent metal decking; and an LH series using a double composite top chord, Rollbars and plywood, for long spans and heavy load conditions.

Hambro results in a relatively shallow floor structure, which reduces the floor to floor — and ultimately the building's — height.

The Hambro System offers many benefits including fast installation, no shoring or back shoring requirements, UL fire rated, low sound transmission, structural rigidity and longer clear span, and compatibility with other building systems.

The Pauley Development condominium walls are being built using the ARXX ICF system. The most notable other use of ARXX in Nova Scotia is the 17-plex Empire Theatre in Bayers Lake, which was built in 1997 making use of 5,376 forms.

The ARXX Wallsystem consists of interlocking, lightweight, expanded polystyrene forms. The forms are designed to be an integral part of the wall and remain in position after the concrete is placed. The insulating capacity of expanded polystyrene coupled with the structural integrity of reinforced concrete is a powerful combination — it makes ARXX walls stronger, safer, quieter and energy efficient.

The ARXX Wallsystem outperforms other construction methods with its design versatility, structural integrity, energy efficiency, sound reduction and wind and fire resistance.

The structural integrity of steel-reinforced concrete provides exceptional protection from extreme weather conditions. ARXX walls are fire-resistant too with two-, three- or four-hour fire resistance ratings.

ARXX walls provide exceptional insulation and this means significant ongoing savings to building owners and increased comfort to the people who live and work in ARXX buildings. ARXX can provide thermal performance values equivalent to, or better than, R-50 wood-frame construction.

As noise levels increase, particularly in urban settings, people crave the calming effects of a quiet environment. ARXX has Sound Transmission Class (STC) ratings of 50 and higher available.

The Mont Blanc condominium subdivision has been under construction in Halifax for the past year. The development includes a four-storey, 80-unit structure and 12, four-unit townhouses. This multi-unit residential community utilized the ARXX Wall System, an ICF product, footing-to-roof throughout. One of the many unique features of the project was the use of the Hambro Floor System, distributed in Atlantic Canada by Pinnacle Agencies, Dartmouth, N.S. Quality Concrete, Dartmouth supplied more than 5,000 m³ of concrete for the footings, floors and walls.



PEI potatoes stored ICF-style



The LOGIX Insulating Concrete Form (ICF) system was supplied this summer for a potato storage facility and maintenance shop at the Kevin Floyd Ltd. Farm, Woodstock, N.B. L. H. Cook's Construction Ltd. erected the buildings and supplied more than 400 m³ of concrete for the floors and walls.

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