

# Hambro composite floor system saves time, labour and money

By Paddy Tennant

The Westwood Corp. Center in Coquitlam, BC is making construction trade history by being the first building in Western Canada to combine load-bearing light gauge steel stud walls with a patented composite joist concrete floor system. The result is a ten-storey commercial-residential building completed in record time and boasting advantages only seen by more costly and time-consuming methods.

Cape Construction initially bought the property with the intention of erecting a conventionally built steel-stud-and-concrete structure with a three-storey parkade. Following discussions with William Danshin, former Steeler sales representative, Cape's Tony Russo had the architects redesign it into a four-level parkade with six storeys of residential space above it, incorporating the Hambro composite joist concrete floor system.

Melit Steel Framers Ltd. was recently created, to specialize in load-bearing steel stud framing systems, in combination with Hambro Composite Joist/Concrete, Q-Deck and other concrete type floors.

The Hambro floor system was



Prefabricated steel stud framework, manufactured to contractor specifications by Steeler Inc.



William Danshin (front left, in blue), with the Melit Steel Framing crew: Back row, L-R: Justin Crockett, Scott Hall, Shane Cameron, Jesse LeMasurier. Front row, L-R: Roy Fletcher and Kevin Turbide.



Floor joists as seen from below



Floor joists, hat track and light gauge steel framing

developed in Eastern Canada 33 years ago by Canam Steel, Canada's largest manufacturer of open web steel joists, steel deck and steel components. Hambro is now reportedly used all over North America, and to date has sold over 100 million sq. ft. in Canada alone.

Load bearing steel stud walls support 12-inch deep composite Hambro steel joists, which are the structural component of the floor.

A resilient hat track is tie-wired to the joist bottom cord, to support one layer of 1/2-inch type X drywall instead of the conventionally used 5/8-inch drywall. The cost savings in drywall and labour is considerable, says Danshin.

There's also a significant time-saving

factor, he adds. With the joist system in place the concrete is poured only 3 inches deep, allowing for such quick drying, "within 24 hours we're back here working again."

Hambro open web steel joists also allow ductability for all mechanical, electrical, and plumbing requirements through the joists, eliminating completely traditional bulkheads, and resulting in even more savings.

Steeler Inc. of Seattle manufactured all the steel stud for the Westwood project. According to Gordon Ivanda of Steeler Construction Supply in Delta, BC, the structure used about 210,000 pounds of steel, which was produced in less than a week. "Steeler can easily produce 120 million pounds of steel

framing product per year" he says.

Danshin shares his enthusiasm for the Hambro system in combination with load bearing steel stud walls with Slobodan Kukic, Hambro's Technical Sales Representative. Kukic says the system's advantages include quick assembly, substantial cost savings in the components and up to three-hour fire rating approved by ULC, CUL, and UL. The combined systems also meet west coast seismic criteria. All this, Danshin says, points to "hundreds of dollars" in insurance savings.

Construction started in February, with completion scheduled for July. A steel framing crew of only six men has worked up to seven days a week at times to complete the project, which

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included 55,000 square feet of floor area.

B.J. Plastering & Consultants Ltd. of Langley has been contracted to complete the building's 30,000 square foot exterior, using Dryvit's Outsulation Plus System in three colours, supplied by Winroc. The balconies will feature a 3/4-inch rainscreen wall system for increased rigidity and added protection.

For more information about the Hambro composite joist concrete floor system, contact Slobodan Kukic at 1-866-203-2001. ■

Cape Construction's Tony Russo and Hambro's Slobodan Kukic outside the Westwood Corp. Centre at 2963 Glen Drive in Coquitlam, BC

