

SPECIAL SUPPLEMENT 2004 VRCA AWARDS OF EXCELLENCE

**GENERAL CONTRACTOR – PROJECT OVER \$40 MILLION • AWARD OF EXCELLENCE**  
 Dominion Construction Co. – Aberdeen Centre

## Curved and Complex

An aggressive schedule and an extremely elaborate building design using standard materials made the construction of the new Aberdeen Centre Mall in Richmond a mammoth task for Dominion Construction Co. Little wonder the \$130-million project earned the construction manager top honours at this year's VRCA Awards.

BY JENNIFER PATTERSON

**SITUATED AT** Cambie Road and Hazelbridge Way in Richmond, the new state-of-the-art Aberdeen Centre looks nothing like your typical regional shopping mall. There are no box-shaped stores, and no sprawling surface parking. Instead, the building's east side tightly wraps the roadway and an undulating 420-foot multi-coloured lighted glass wall dominates the structure.

The new mall covers six acres — triple the size of the original Aberdeen Mall. Its redesign and redevelopment was intended to

bring to the formerly Asian-themed shopping centre an international feel. Its ambitious architectural style, designed by renowned local architect Bing Thom, composed of curves and surfaces which are as clean and organic as an egg, was particularly challenging work for Dominion Construction Co., construction managers on the \$130-million project.

Dominion Construction was involved on the site of the new Aberdeen Centre Mall from the very beginning, assisting in the demolition of the old 118,000-square-foot regional shopping mall, which was constructed in 1990. Ground was broken on the new site in August 2002, with the new building, an elaborately curved, futuristic design, completed 16 months later. The mall's soft opening was held on Dec. 12, 2003.

The project was completed on time and under budget, but was not without its challenges.

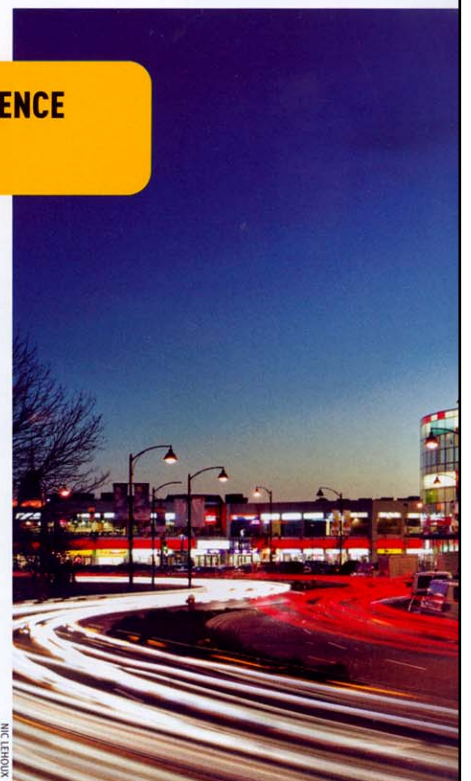
"[Architect] Bing Thom's design for this building was to mimic a similar mall in Hong Kong and comprises a large degree of curves, curvature, open spaces throughout the mall," explains Mike Hartigan, project manager for Dominion Fairmile Construction Ltd.

Those curves included the large domed ceilings containing randomly shaped skylights, balconies along the upper levels of the three-storey shopping mall and not a square corner or a straight line in the entire 380,000-sq.-ft. complex.

The design team was trying to create a very esthetic building using standard materials in a very tight budget, says Hartigan. Consequently, as construction managers, Dominion Construction had to "push the envelope" and maximize the use of routine construction equipment and materials, rather than relying on more expensive, specialized products.

Drywall and concrete were two of the standard materials which were used extensively throughout the project. For instance, the large domed ceiling above an elaborate \$3-million Las Vegas-style fountain in the central atrium was intended to be as smooth as an eggshell to act as a screen for light projections that accompany the musical fountain's scheduled sound and light shows.

"Trying to do that large ellipse of a ceiling just with standard drywall and techniques was very difficult," Hartigan confides. "It took a high degree of skill in actually putting that together. There was a lot of curvature in the concrete, curved landings, just a lot



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## Quick Facts

**OWNER/DEVELOPER:** Fairchild Developments Ltd.

**LOCATION:** 4151 Hazelbridge Way, Richmond

**SQUARE FOOTAGE:** 385,000 (mall); 500,000 (parkade)

**CONTRACT VALUE:** \$70 million

**GENERAL CONTRACTOR:** Dominion Construction Co.

**ARCHITECT:** Bing Thom Architects

**CONSULTANTS:** Bush Bohlman & Partners, structural engineers; R.A. Duff & Associates, electrical engineers; Keen Engineering Co. Ltd., mechanical engineers; Fred Liu & Associates, landscape architect.

**SUB-CONTRACTORS/SUPPLIERS:** Advanced Glazing Systems, glazing; Gallagher Bros. Contractors Ltd., drywall; Georgia Mechanical Systems Ltd., mechanical; Griffiths Pile Driving Inc., piles & caissons; Bar-None Reinforcing, rebar; Micron Formwork Inc., formwork; Star Masonry Ltd., masonry; Western Pacific Enterprises Ltd., electrical; Wesbridge Steelworks Ltd., structural steel; Woodrose Woodworking Inc., millwork; Ocean Construction Supplies Ltd., concrete.

of curvature throughout.”

Other complexities included deep pile foundations to secure the structure in the soft Richmond soil, the use of more than 606 tons of structural steel for the elaborate roofing system and dealing with construction height restrictions stipulated by the site's proximity to Vancouver International Airport.

The mall owners, Fairchild Developments Ltd., had a very aggressive schedule to get the mall opened by a certain date. The

tight schedule and the complexity of the concrete pours made the project very difficult, say Hartigan. Additionally, the five-storey parkade tucked behind the mall complex and out of view of the street was made of cast-in-place concrete.

The mammoth task was, in Hartigan's words, “trying to organize the logistics of men and the sequence of construction when you're working with a design that wasn't completed at the time and working to a tight schedule. Under construction management, you

## *Congratulations to Dominion Construction Company Inc.*

*on winning the  
2004 VRCA Award of Excellence  
in the General Contractor Over \$40 Million category  
for the Aberdeen Centre Project.*



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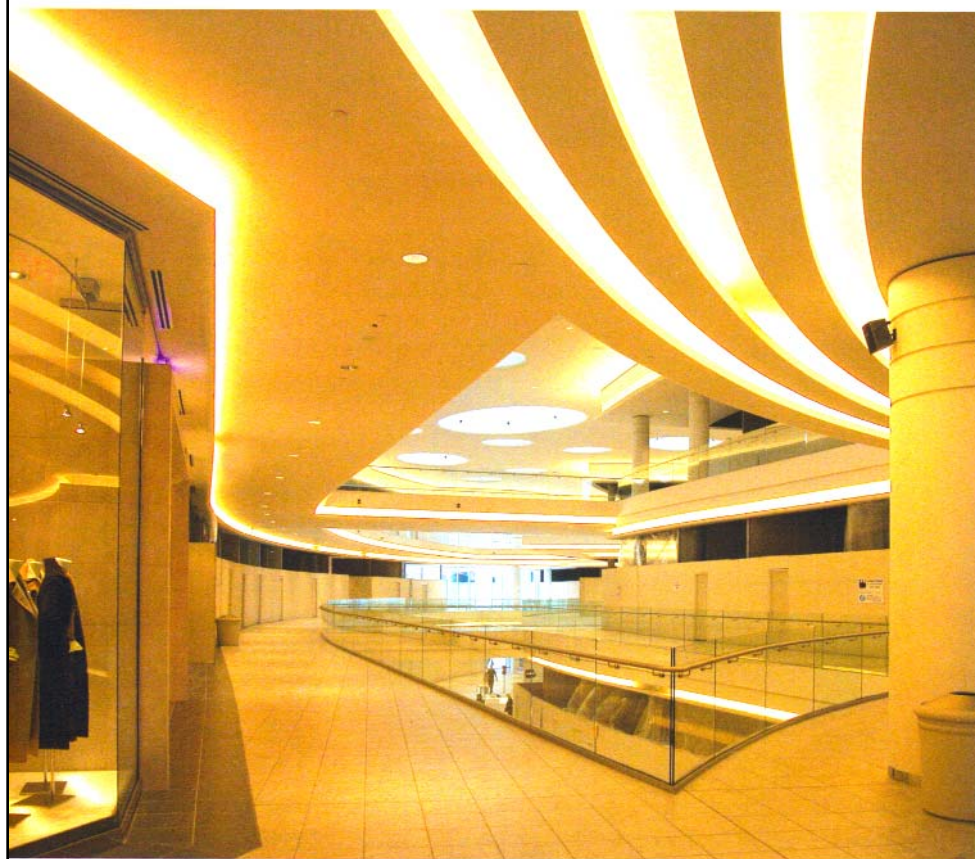
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*Another Project by Fairchild Developments Ltd.*



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The curvaceous interior of the Aberdeen Centre made the use of standard building materials such as drywall quite a challenge.

start off with a basic design intent and the design evolves as the building evolves, so you're always chasing for information and details. That was one of the challenges of the job in terms of maintaining the schedule."

It was this extremely challenging project that earned Dominion Construction Co. top honours at the 2004 VRCA Awards of Excellence in the category of General Contractor for a project with a budget of over \$40 million.

With limited design information available, Dominion had to run the job as a very large team project, working closely with the consultants, owner and the trades. It required a large team from Dominion alone to organize the paperwork and the flow of the process. The contractor went through several hundred binders of information containing active job files on the project. There were just over 60 subcontractors on the job, with close to 500 workers on-site at the project's peak.

Some of the finishing trades, including drywall, electrical and painting, went into double shifts and night shifts to get the job done on time.

"It's a very satisfying project when you see the end result," Hartigan says now. "When it comes together at the end, you can stand back and appreciate what has gone on in the previous year and a half." **CB**