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BREATHING BUILDINGS**

The Serrano at Village Gate West

by Don Procter

The recently completed 21-storey Serrano is the first of a three-phase residential development called Village Gate West in Toronto.

Burka Varacalli Architects designed Serrano as a small-slab, 16-storey concrete tower set back on top of a five-storey L-shaped podium with more of a Main Street character than the usual suburban highrise project. The podium's massing and its cladding, a smoky grey-coloured brick with light tinted-grey glazing, define a friendly street edge animated by the building's lobby and retail space, says Andre Brochu, project manager/designer.

Brochu says the design challenge was how to sensitively deal with a high-density development on a small irregular-shaped site. Ultimately, when the four-tower, 950-unit residential project is completed, it will face onto a central park set atop a three-floor underground parkade.

Amenities include a meeting lounge, games room, theatre room and large fitness centre. The building contains 278 units, ranging from studios

to two-bedroom plus den designs. Many suites feature glass balconies or terraces. What is especially unusual about them for Toronto is they will be for rent, not for sale.

That does not mean the developer, Concert Properties Ltd., skimped in any way on the building's design or construction. "The quality of the building is just as high if not higher than many of the condominiums being done now in Toronto," says Brochu. "The amenities, level of finishing, and the exterior building envelope components are of similar quality to what we do in our high-end condos."

David Podmore, president and CEO of Concert Properties, says the reason Concert decided to do a rental tower partly stems from a relationship it has with co-owners OMERS and Sun Life Financial. "We, as a group, are more interested in long-term income properties that we hold. It provides a stable base of income to the company and in turn to the pension funds which are our owners."

While initial returns on the investment will be low, Podmore says the company's philosophy is built on patience. "We can take a lower return initially and hold off for the longer term."

Underground running water, a harsh winter and a couple of strikes by building trades tested the general contractor's mettle.

Excavation was trying at times because of an unexpectedly high water table, says Mario Camicata, senior project manager, Deltera Construction Ltd. "The soils report didn't indicate there would be that much water on the site."

To deal with a colder than usual winter, Deltera rushed contractors constructing the exterior skin to close in the building early, says Camicata. "In terms of timing and execution there was a fair bit of planning involved because the trades had to work together."

Construction was also hampered by two building trades' strikes. Plumbers went out first for almost six weeks, significantly delaying construction of the top four floors. Carpet installers also

caused delays when collective bargaining stalled over wage demands. The Serrano's bedrooms, living and dining rooms, with the exception of studio suites, are all carpeted, says Camicata.

The finished roof on the podium is covered in a *green mat* of plants, designed by Xero Flor Canada Ltd. The idea is to reduce the heat island effect and reduce rainwater runoff, he says.

The fact the building is a rental tower is why the developer selected an energy-efficient heating, ventilation and air conditioning (HVAC) system. The mechanical/electrical consultant, MV Shore Associates (1993) Limited, installed boilers with an 87-per-cent thermal efficiency rating. Conventional boilers are rated at 80 per cent efficiency. The building's chiller is also an energy saver. It has a lower kilowatt input per ton than conventional chillers. "In the long term, the energy consumption and the longevity of the equipment makes this equipment a good choice," says Bill Chan, principal at MV Shore.

In addition, the tower features a fully automated building control system to ensure all of the HVAC equipment works to maximum efficiency. On mild winter days, for example, the boiler system will provide less heat than on colder days. "It's a system that is more fine-tuned to the actual weather conditions outside, providing more efficient heating [and cooling] and making the building's suites more comfortable," says Chan.

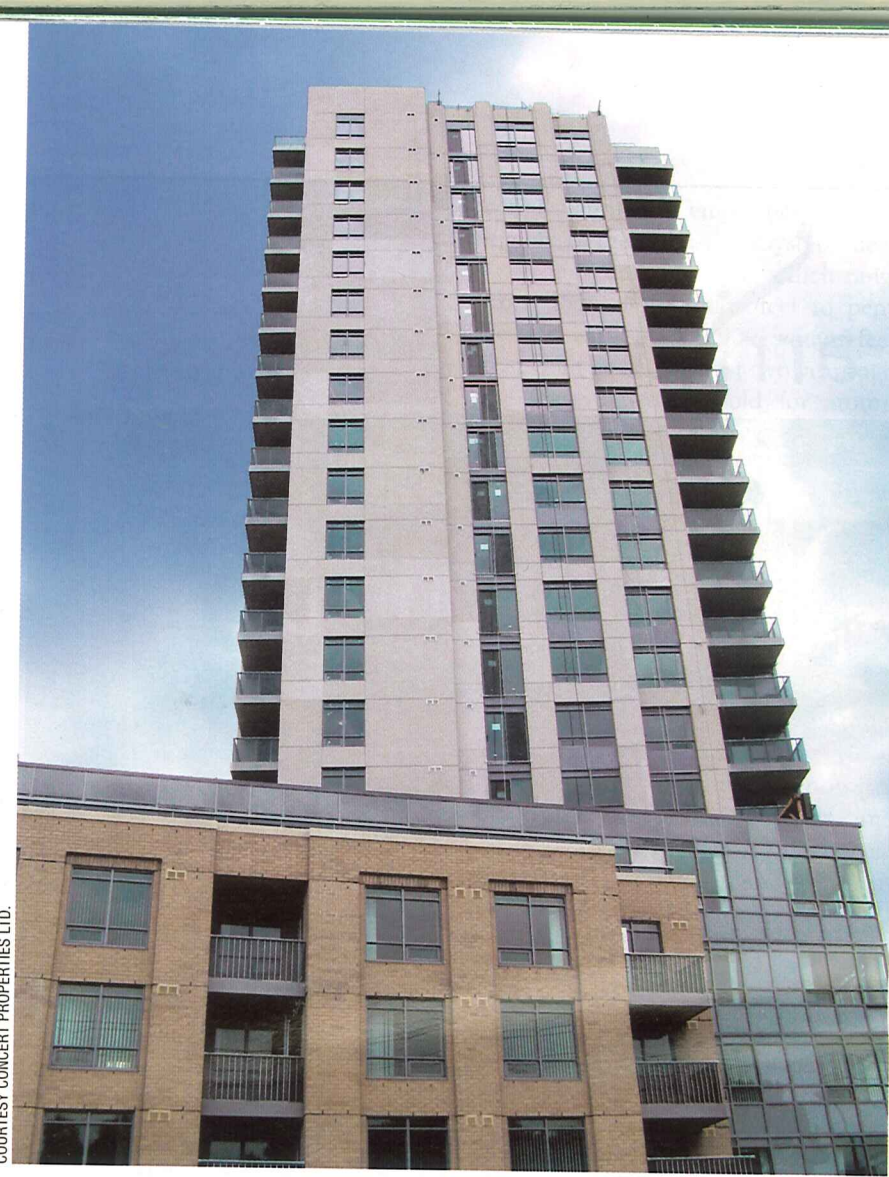
Lighting in all public amenity spaces at Serrano, including the parking garage, is controlled by motion detectors. All lights are energy-efficient fluorescents. The lighting will cut 1.5 to two per cent off the building's overall electrical output. More building owners are choosing to spend the extra cash to incorporate high efficiency HVAC and lighting systems, says Chan.

The structural design was straightforward, says Jeff Vivian, partner at Jablonsky, Ast and Partners, structural engineer. The poured-in-place concrete structure did, however, require a second floor transfer beam to allow for more column-free space at the ground floor (including retail and public amenities) and a ground-floor transfer beam that eliminated the need for some structural columns in the underground parkade.

"Under the main part of the 21-storey tower, the (structural) columns mostly lined up," he says, so transfer beams were not required.

Vivian says engineering the top of the three-floor underground parkade that is covered by landscaping, and an access road to the building was "a bit tricky. We had to design loads for the street basically to run over the parking."

Conventional concrete was specified. Concrete containing a recyclable slag component was dismissed because slag slows down the curing process. "It would have put our timelines in jeopardy," says Vivian. ■



COURTESY CONCERT PROPERTIES LTD.

LOCATION

5145 Dundas Street West
Toronto, Ontario

OWNER/DEVELOPER

Concert Properties Ltd.

ARCHITECT

Burka Varacalli Architects

GENERAL CONTRACTOR

Deltera Construction Limited

STRUCTURAL CONSULTANT

Jablonsky, Ast and Partners

MECHANICAL/ELECTRICAL CONSULTANT

MV Shore Associates (1993) Limited

INTERIOR DESIGN

Northgrave Architects

LANDSCAPE ARCHITECT

NAK Design Group

TOTAL AREA

217,000 square feet

TOTAL CONSTRUCTION COST

\$32 million