

## Masonry breaks first-cost barrier

*by Frank Lillquist*

Circumstances are combining in favor of persistent efforts by the B.C. masonry industry to capture a larger market share.

With leaking condos and schools causing chaos in the Greater Vancouver building industry, many buyers of construction are taking a hard look at the masonry option.

While masonry has always offered superior moisture protection and a strong life-cycle cost argument, a recent study puts structural block in first-cost competition.

The study was prepared by Thornley Consulting Group Inc., construction cost consultants, of Victoria, in conjunction with CJP Architects and Pomeroy Engineering. Called Conceptual Options Analysis, the study used the design of Sefton Elementary School to compare costs of building in steel, concrete, masonry and wood.

Strictly on unit cost, masonry surprised many construction professionals by coming in at \$909.96, compared to \$1,039 for steel, \$915.85 for concrete and \$924.15 for wood.

Not surprised is Bill McEwen, a professional engineer and executive-director of the Masonry Institute of B.C.

Always personally convinced that he represents a superior building system, McEwen admits that breaking through the first-cost mentality has been difficult, especially on public projects.

“We’re comparable on first cost, even in a less than ideal lay-out,” McEwen told the Journal of Commerce recently. “And we think that in life-cycle and other non-first-cost issues, we carry the day.”

By “less than ideal”, McEwen means that Sefton was originally designed to be built in wood.

“There would be more economies if a school was designed in masonry,” McEwen said. “This school (Sefton) had a very steep, pitched roof, for whatever

aesthetic reasons, so the brick walls had to go twice as high with no advantage in floor space.”

McEwen seems confident the right designs will be produced, noting that architects are increasingly interested in talking to the masonry industry.

Through the Council of Construction Trade Associations (COCTA) the Masonry Institute has produced a technical bulletin with the Architectural Institute of B.C. The Institute is also working with AIBC to present well-attended monthly seminars.

Important recent breakthroughs for the masonry industry have occurred recently in the Okanagan where two public school projects went structural block. The Rutland Senior Secondary is completed and the Kelowna Senior Secondary is under construction.

Public school projects are important for the masonry industry because while private school authorities often opt for the life cycle advantages, provincial authorities have not.

“We’ve always done better, for the past few years, on private schools where the people who pay for the school are the same ones who pay for the maintenance,” McEwen said.

“School districts like masonry because they pay the maintenance but Victoria is in a situation where they look at low first costs.”

Victoria’s attention could be attracted to prototype masonry designs for both elementary and secondary schools. Kanau Uyeyama of Architector Architects is working with the Masonry Institute to produce the prototypes for presentations to the ministry and school districts.

The increasing momentum in school construction is just one mark of masonry progress in B.C. The industry is also making a determined bid for the condominium market.

The rain-screen protection of brick is becoming a decisive factor in the Greater Vancouver area. The irony of this is not lost on McEwen.

“Rain screens are the hot topic and we’ve had them for 70 years. All of a sudden we find we’re the leading edge, which is kind of ironic.”

Technical and aesthetic advantages of masonry for condominium construction were detailed in a report last year. It is available through the Institute.

More recently a change in how floor space ratio is determined gave the masonry industry another boost.

“Before, it was measured to the outside, which discouraged thick walls, because you’ve got to sell floor space,” McEwen said. “We’ve talked about this for five years, getting nowhere, but we got it through the Barrett commission.”

Vancouver changed its regulations on floor space ratio earlier this year and several other municipalities have followed suit, McEwen said.

Some advantages of masonry construction, like fire resistance, don’t seem to score high with school boards, something McEwen finds curious. However, the masonry industry is going to keep plugging away at all its strengths, including what one architect called the “kid proof” quality of a masonry party wall, and the sound insulation.

Aesthetically, brick will always have a traditional appeal but McEwen points out that block today also has eye appeal.

There’s colored block, split brick, ribs, painted and more. “There are options and we can do quite a few nice things.”

McEwen sees the cycle coming back to masonry construction, especially in the school market where it once dominated.

“We may be coming back to the era of the red brick school house,” he said. “Although the brick may not be red.”

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