

### James Cheng - A Changing Architecture for a Changing People

To understand the importance of the Olympic Village, you have to think about the kind of settlers who chose to come live on the west coast. In the gold rush days, the first wave had a pioneer mentality. The second wave were wanting to escape the social stigma and restrictions of the east coast. These free spirits wanted to have their own individual identity, their own little house in the mountains and their own little piece of nature. They tended to have a mistrust of big government, so they didn't build much big shared architecture.

That was the ideal of early artists, such as B.C. Binning or Gordon

Smith: to live out in communion with nature. Some of our architects became masters at putting beautiful little houses into the landscape. But it's no longer there; our subdivisions today have nothing to do with that original ideal. Now, we've learned that in order to preserve our beautiful nature, we need to build this new form, the denser city. Because if we don't densify, we see what happens. It's suburbia, and it will keep going and going.

I think we're ready for this change. I think the hippie population has reached the point where they understand that they need other people. We're going to need medical

attention, we need assistance, we can't be the hermit in the mountains anymore. This is the reality: when we get older, we need more help. And we turn more sentimental, we remember all the good times we had when we were in school with our friends and we look forward to seeing someone we haven't seen in 40 years. Even the hermit needs to come to the village.

The Olympic Village project will inform us. It shows there is an alternative to tall slim buildings; it will help us visualize how we can densify other areas of the city. I think the people of Vancouver have to see this and experience it. We

can look at this as a test model for urban design. As a citizen, I don't mind if it goes over budget, because we're getting a lot more than just monetary benefits out of it.

That's why I enjoy architecture and urban design – because it is always changing. We're here at a certain moment in time, but today's solution is only right for today. If you go forward 20 years, it will change again. Right now, this is our next step.

James Cheng, MAIBC

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The design of the buildings at the Olympic Village began with a division of the site into “parcels” – city block-sized tracts of land that would each hold up to four buildings. Each parcel was overseen by a different architect, adding diversity and making it possible to design the whole site within the tight timeline. The process began with a consideration of passive design techniques and progressed to the fine detail that differentiates parcels from each other.



#### Natural Systems Dictate Design

From the early plans and visions for SEFC through the re-zoning and design process, the designers of the Olympic Village were handed a clear mandate: create a livable, dense urban village – with high standards of environmental performance built in. To help achieve the required energy efficiency, the team's approach focused on the use of passive design.

Passive design is a current term that describes an age-old concept: designing buildings that respond to their natural environments. It recognizes that the simplest way to create a bright, comfortable indoor environment is by taking advantage of the free and plentiful energy of the sun.

The City of Vancouver defines passive design as “an approach to building design that uses building architecture to minimize energy consumption and

improve thermal comfort.” This relatively straightforward notion has fallen out of practice where inexpensive energy has encouraged the use of mechanical systems instead of passive techniques – illustrated by many of the recent buildings in Vancouver.

The cost of implementing passive design is relatively inexpensive, yet the energy savings can be significant. “You can also create a high-performance building by designing a super high-efficiency mechanical system,” says Albert Bicol of Cobalt Engineering, the lead mechanical consultant for the Olympic Village. “However, if you implement passive design strategies at the outset, you can have a better performing building (in terms of comfort and energy use) with a significantly less complex, less expensive mechanical system. Passive strategies are proactive and mechanical systems are reactive.”

#### PROFILE

##### Kenneth Chow

MEng, PEng, PE, CP, MSFPE  
Principal, Pioneer Consultants

As the certified professional and code consultant on the project, Ken Chow facilitated the balancing act of ensuring that the project would proceed on schedule, retain its architectural identity and comply with code regulations every step of the way. By doing this, he helped to ensure that the buildings would be able to obtain occupancy permits quickly, on deadline. “The thing I enjoyed most on this project was resolving difficulties – working with contractors and consultants to solve problems without sacrificing compliance or quality,” says Chow.

Chow and his team at Pioneer were responsible for delivering “alternative solution” reports when the project did not conform to code requirements – a frequent occurrence in a project with this level of complexity. Many of the sustainable design features applied at the Village were considered unconventional from a code point of view. These reports describe how the design team's approach, while “unconventional”, still complied with code.

On the topic of deadlines, Chow says he was not overwhelmed by the pressure of the Olympics' fixed schedule. On the contrary, he says, “I am used to fast-tracking. I thrive on a tight deadline.” This is understandable, considering he has over 32 years of experience in the industry, including other mega-projects such as EXPO '86 and the Coquihalla Highway.