

QUAD-LOCK[®] PROJECT PROFILE

KYOTO-FRIENDLY BUILDING

The Kyoto Protocol is an agreement that by 2012, industrialized countries will reduce their collective emissions of greenhouse gases by 5.2% compared to the year 1990. If you compare expected emission levels by 2010 without the Protocol, this represents a 29% reduction.

Concrete and Insulating Concrete Forms (ICFs) play an important role in any sustainable development. Long building lifecycle, low maintenance and operating costs, energy efficiencies and superior indoor air quality are just a few of the reasons to consider this building technology...

Building a Better Building...

"Ultimately, I'm in the landlord business" says Michael Laver, realtor, developer and proud owner/builder of a mixed-use insulated concrete building in Courtenay, BC. "I own a number of older, wood-framed buildings in the downtown area. When I first began thinking about developing a downtown lot I owned, I thought I don't want to build a 'sick' building." Sick buildings are a fairly recent tag-line for buildings that perpetuate an unhealthy living or working environment – poor air quality, lighting, heating & cooling and generally, an ideal environment for mold, allergens, rot and insects.



"When I started to read about sick buildings and their effect on the people, I wanted to build something better, smarter and, sustainable" says Mike. "In BC, we have so many problems with 'leaky condos', where bad construction practices have led to mold and rot causing millions and millions of dollars worth of damage. I don't want to be associated with that type of construction. I have close, long-term relationships with my tenants; I don't want to do something that could jeopardize their, my, or my family's health."

"I'm always on the look-out for the next new thing" says Mike, "when I learned about insulating concrete form (ICF) wall systems and then found Quad-Lock, who has an ICF floor system that can be completely integrated with their wall system – I knew I found the right envelope for my new building. In addition, Quad-Lock's expanded polystyrene (EPS) forms contain no formaldehyde, CFCs, HCFCs or other harmful substances so I knew that I was making the right decision."

"If my tenants are happy, they will stay in my building – it could take months, with no lease contract, before I find a suitable replacement tenant. Why would I want to jeopardize my earnings? Building with ICF & concrete have inherent energy efficiencies and other desirable attributes which give me the ethical peace-of-mind that I'm doing the right thing. It allows me to offer a superior building that tenants will pay to lease – long-term."

Smaller Appetite...

"I've been in the landlord business for years and I chuckle when I think about the efficiencies of building an insulated concrete structure." Here are some examples:

- Because of the air-tight nature of ICF construction, an air replacement system is required that will run at least 3 times per hour. The engineer-specified system, based on concrete & ICF, indicated that HVAC system could be sized at 2 tons versus 5 tons. So by design, there was a 60% reduction in the HVAC. Unfortunately, a 2 ton system isn't strong enough to force the air through the square footage of this building. A 3 ton system had to be used – still, that's a 40% reduction in tonnage.
- Using Quad-Deck, the insulated concrete floor has a deep (6 inch) concrete cap (that houses the radiant in-floor for the apartments on the third level). This means that fire code approval was not only received for the walls (side-by-side) but for the floors (up-and-down), as well. That's great news if you want to attract a

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restaurant into the building. And, insurance costs are less, compared to insurance costs on older buildings in the same area. Plus, there's an additional insurance savings because of sprinkler systems that were installed, expecting that this would be a great location for a restaurant.

"If you couple these types of savings with all the other qualities of ICF construction, like high STC ratings, 4-hour fire rating, and the structural integrity that only comes from a reinforced concrete building – why would anyone build with anything else?"

Just the Facts...

Building Summary:

- **3 Levels: 1st -2nd commercial, 3rd residential**
- **50,000 sqft of walls and floors (reinforced concrete & ICF)**

A multi-use designed building, in the downtown core. There are:

- **Five commercial, "walk-in" spaces. These locations are ideal:**
 - For tenants – restaurant, office, retail, art studio
 - For proximity – heart of downtown
- **Four residential, two-bedroom apartments. These premium view residences have:**
 - Beautiful custom cabinetry & fixtures (kitchens/bathrooms).
 - Room-by-room controlled radiant in-floor heating/cooling
 - Open floor plans, custom kitchens, in-suite washers, dryers



Not Just any ICF...

"When you are doing a project of this magnitude in this type of location, you want to be sure you can get the support you need to be successful. I could have used virtually any insulating concrete form – there are some key reasons why I chose Quad-Lock."

- **Knowledge** – Quad-Lock understands how to build and their product was designed with builders in mind. They partner with you to ensure you have a successful project.
- **Experience** – Anything you can ask these guys, Quad-Lock has seen it before and will assist you in all aspects of your development. From window and door bucks to membranes to plumbing and heating configurations.
- **Training** – Quad-Lock is the best at providing assistance whenever it's needed. They offer contractor certification training as well as on-site job training; they were always just a phone call away.
- **Lower Transportation Costs** – because Quad-Lock is a flat panel system, there was more product in each shipment, which means less shipments were needed. It's easy to store on-site and all deliveries were on-time.
- **No special ordering** – with Quad-Lock you don't have to order corner or spacer pieces. You have everything you need in 4 simple components to build on-site, whatever it is you want to build.

Mike is so convinced that building with Quad-Lock ICF and concrete is the way to build; he summarizes his experience this way: ***"It's worth building with Quad-Lock for the energy savings alone – I will never build with anything else."***

Quad-Lock has proven itself as the manufacturer of the most versatile and highest quality insulating concrete forming system on the market and customer satisfaction is its mission.

For more information on Quad-Lock and its products visit www.quadlock.com, email info@quadlock.com or call 888.711.5625.