QUAD-LOCK®

PROJECT PROFILE

Deluxe Condominiums Set New Standards in Design & Performance

2010 "Best in Class" Multi-Family

ICF BUILDER AWARDS

Villa Rose in Qualicum Beach on Vancouver Island, BC was a project that presented a unique set of challenges. The Developers, Architects, Engineers and Contractors worked together on a restricted site of varying grades, to construct a high quality environment for residents and commercial clients, while keeping within strict local aesthetic and planning obligations.

The building is a solid concrete structure from top to bottom. The parkade walls were formed with Quad-Lock's Insulated Concrete Forms for their **insulation values, speed of construction and the ability to work with minimal clearance** due to the proximity of adjoining properties. All exterior and interior residential walls were also constructed using Quad-Lock ICFs and most residential **floors with Quad-Deck**, giving the advantages of **low operating costs, durability of the structure** over time (vs. wood), **excellent fire ratings, and low sound transfer**. With 20 condominium units occupying this building, there have been zero complaints due to noise transfer, which would not have been the case with wood frame construction.

Early on in the planning stages, several ICF brands were examined for their suitability. Chris Doyle of Willow Lane Construction explains, "*We felt that a panel system, as opposed to a block, gave us the **best chance of dealing with the structural steel issues that arose**. We were correct. The structure included hundreds of zone reinforced columns (within the wall form) that stabilize the building during seismic events. The Quad-Lock system allowed us to thread the ties through these zones as opposed to building the zones within the block form, **saving us countless man hours***."

Quad-Lock Project Profile - Atlantic Coast Beach House

Each commercial and residential unit in the building is heated and cooled by its own dedicated heat pump which had its size significantly reduced - thanks to ICF construction. The traditional exterior appearance is a combination of Hardie shingle and Hardie lap, prefinished in the factory and mechanically secured to the ties in the Quad-Lock ICF system. The exterior decks and balconies are concrete in structure as well, and all windows and exterior doors are glazed with Low-E argon filled glass. The building's many patio doors are of European design, incorporating an eight point cam lock system, for maximum air tightness to complement the **low ICF air permeability**.

The result? Villa Rose has set the standard for high-end condominiums in this area. The quality and durability of the structure will remain long after comparable wood-frame buildings have been torn down. The residents of Villa Rose are happy that - however long they live comfortably in the building - when they are ready to sell, they will receive an excellent resale value for their unit.

Many wood framed apartment buildings utilize the same finishes that were used on Villa Rose, such as hardwood flooring, granite countertops, high-end appliances, etc. However, the benefits of the Quad-Lock ICF wall and floor systems go far beyond the cosmetics. High insulation values, air-tightness, sound-deadening, structural stability, and the fact that ICFs are not subject to mold, mildew or dry-rot, put Villa Rose miles ahead of the competition in energy use, maintenance, comfort, and sustainability.

General Contractor Chris Doyle remarks, "*The use of the Quad-Lock ICF as a forming system allowed us far more flexibility in terms of dealing with complex wall configurations. This building serves as an example to prove that* ***there are no limits to what can be built with the Quad-Lock ICF Systems***."

The Villa Rose project has been very well received and it is felt that, as the public continues to become educated about green and sustainable building practices, its reputation will only grow. Even the building's strata council concurs stating, "*All of the owners are very* ***proud of the superior construction of our building*** *and would like the public to be aware of how special it is*."

Put simply, Villa Rose has set the benchmark for how buildings of this type should be built, and this project serves as an attractive example of the superior results achievable with Quad-Lock's Insulating Concrete Forms.

Interesting Facts

- 64,500sqft - 20 Unit Condominium Complex with Commercial/Retail on main
- 3 levels plus underground parkade
- 88 Days ICF Construction Time
- Time Saved by using ICFs = 20 Days
- R-22 Configuration with Quad-Deck used for flooring system
- 44 corners on main level, 97 on 2nd and 146 corners on 3rd level
- 20 Sun Tubes on 3rd level
- 9 Architectural (non-functioning) chimneys
- Wall heights in parkade vary from 12' at top end to 6' at lowest point

Project Partners

- Owner/Developer - Ladner Ventures
- Architect - Ulrich Laska Architectural Corp.
- Engineer - Herold Engineering
- General Contractor/ICF Installer - Willow Lane Construction - Chris Doyle

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Version 1.0 Release Date 2011-08