

DND Housing Construction of new Modular Homes Underway

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The Canadian Forces Housing Agency (CFHA) is making every effort to ensure that its housing solutions are innovative, meet the needs of Canadian Armed Forces (CAF) members and their families and supports the Defence Team's commitment to improve the way it does business.

With the organization actively engaged in Defence Renewal, projects such as this provide the opportunity to change the way work is done for the better, while ensuring the best value possible is provided to Canadians, says Scott Stevenson, Assistant Deputy Minister (Infrastructure and Environment).

"More than ever before, innovation, value for money and increased efficiency are objectives that guide the provision of residential housing for military families and it shows that for CFHA, these things are always top of mind," explained Mr. Stevenson.

Keeping these objectives in mind, CFHA conducted an experiment to determine if modular homes would be an advantageous housing solution. During fiscal year 2011/12, CFHA built both a modular and conventional home at 8 Wing Trenton and compared how the two performed.



A modular home is delivered in pieces and then assembled on-site in Trenton, Ontario.

Photo: Courtesy of CFHA

Modular Homes – How They Stack up

A modular home is built off-site in a factory and then assembled in large pieces (or modules) on-site. Modular housing was an attractive option to CFHA because it allowed for greater scheduling control, more precise conformity to building code standards, and better quality assurance versus the conventional house building process.

The comparison revealed that the two houses ended up in a similar price range. CFHA also learned a valuable lesson about costing; the goal to build new quality houses that met housing requirements at a competitive price, completed in a quicker manner than the current method of procurement was achieved, and these important lessons learned are being applied to future projects.

Also important to note is that the environmental rating for the modular home built was above CFHA standards for new constructions. Additionally, the house is among the most energy-efficient on the market. Most impressive of all, the construction time from start to finish, both on and off site, was only three months.

What comes next?

While the modular home analysis is ongoing, the appearance of modular homes in DND's housing portfolio is promising. Danilo Botti, Acting Manager of CFHA's Capital Program Implementation elaborates on the Agency's future plans for modular housing.

“So far we have built one home in Trenton and two in Gagetown. We have plans to build an additional six by the end of this fiscal year in other locations such as Comox, Esquimalt and Halifax.”

In addition, as part of DND's Medium-to-Heavy Lift Helicopter (MHLH) squadron improvement project, new housing and other infrastructure investments are also scheduled for CFB Petawawa. Of the 72 new housing units to be built in Petawawa, the first 26 of those will be modular homes and are scheduled to be completed by September 2013. The rest of the homes will be built over two phases and are planned to be a mixture of conventional, modular, and barrier-free access homes.

Finally, the contract awarded in Petawawa shows that this innovative way of procuring new quality construction housing is much cheaper than what was estimated under the original project, even cheaper than what was paid for the Trenton modular. This new method reduced the overall duration of the construction project by more than one year.

CFHA will continue to build on its vision to provide CAF members and their families with a portfolio of wide-ranging innovative housing solutions. The “outside-the-box” thinking behind modular homes did wonders to progress CFHA to this next level – as is evidence by these two-storey inside-the-box houses.