



Building Better

A First Nations National Building Officers Association publication

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Mandatory Inspections Key to Market Housing Fund Criteria

FNNBOA believes one of the key criteria for the First Nations Market Housing Fund is mandatory inspections. In August, FNNBOA participated in the First Nations Market Housing Fund Engagement Process (FNMHFEP) by providing several comments. The Engagement Process included a Power Point presentation to the group, a conference call with the FNNBOA executive, and the association responding to a questionnaire.

One question focused on the importance of access criteria. It is proposed that these criteria are required to help assess whether a First Nation is in a strong position to backstop members' housing loans and receive loan backing from the fund. The criteria will also help identify capacity-building opportunities, where needed, for First Nations wishing to use the fund in future to promote market-based housing in their communities. In response to this inquiry, FNNBOA suggested that First Nations should demonstrate strength in the following areas:

- Community housing plans
- Stated band by-laws directed at housing that

include homes being built to national/provincial codes and standards. (Band Council resolutions are easily overruled with a change in governance, therefore by-laws need more strength.)

- A permission or housing-permit system to ensure homes are built on land appropriate for housing
- Access to qualified inspectors
- Infrastructure
- Capacity to implement housing by-laws
- Building-maintenance programs or support for individuals who own their homes
- Strong band housing policies with a building-permit process ensuring that plans reviews, compliance inspections and other applicable permits are completed and filed. The building-permit process must be closely linked to land-use policies governing where residential construction can occur, and must also limit the lot to a reasonable size.

In response to the FNMHFEP's question on the criteria for

quality of housing, FNNBOA provided the following suggestion. A very comprehensive by-law system focuses on the following areas:

- A series of prohibitions relating to building or occupying a place without a permit
- Duties and responsibilities of the person building or occupying the home
- Duties and responsibilities of the building inspector
- Powers of the building inspector including stop-work orders
- Use of building permits including fees
- Appealing the decisions of the building inspector
- Relocation of buildings
- Demolition of any building and required permits
- Other requirements that focus on nuisance weeds, disposal of debris, site drainage and grades, parking and screening for commercial buildings, maintenance of construction sites, retaining walls, pre-fabrication of homes, swimming pools, use of canopies and awnings,

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FNNBOA President's Message

Almost every day, we read in the newspaper, watch on television, or hear on the radio about bad happenings in our communities. Very seldom do positive stories appear. So when the series "Closer to Home" (www.closertohome.ca) aired on APTN, it was very exciting for all of us.

Closer to Home is a six-part documentary series that takes viewers onto reserves across Canada to experience home, housing, and life from a uniquely First Nations point of view. The series is hosted by acclaimed First Nations actor and home builder Wayne Baker, and includes our co-president Helen Wakelin Ward, from Eel Ground, New Brunswick, and one of the original members of FNNBOA, Walter Mishibinijima, of Wik-wemikong Ontario. You can imagine, we are all very proud.

The series focuses on the positive side of housing, not on the poor housing conditions that unfortunately exist in many of our communities. We know our ancestors knew how to build shelters. Depending on our heritage, they built teepees, lodges, or wigwams, all geometrically designed, with air quality that was probably better than that in many homes built in our communities today.

We are a long way from traditional native shelters, but with the advancement of building sciences, codes and standards we should be able to build excellent homes similar to those shown in Closer to Home.

After reviewing all the episodes, the question we need to ask ourselves is how do all First Nations communities achieve quality housing?

First, we need to take responsibility for the homes being built in our communities. Tribal/band councils can lead the way by passing the appropriate by-laws to ensure homes are built to code.

Second, these by-laws can ensure that all new homes have their building sites and plans approved, and that the infrastructure is in place to support the building (e.g., water and sewage). This can be done through a building-permit/permission system or a third-party review of the plans (e.g., a neighbouring community or tribal/band council). What's most interesting about this process is that you could charge a fee and raise some revenues.

Third, tribal/band councils should have homes in their communities inspected by a certified inspector to ensure that the building meets the required building code and standards.

Fourth, the funding agencies, whether it's INAC, CMHC or a bank, can insist that the homes have a final inspection by a qualified inspector. In this case, we would argue that the inspections should be done by a person certified by FNNBOA, but there are other acceptable certifications. Most important, the final inspection by a certified inspector is essential before a final payment is made.

Finally, standards are standards, and what is good for those living off reserve should be equally important to our people in our own communities. For example, off reserve, final inspections by qualified people take place before funds are paid, which is not the case on reserve. Equipment such as furnaces that

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About This Issue ...

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Contributors

Bud Jobin, John Kiedrowski and Helen Ward-Wakelin

Editor

Moira Farr

Production

taybridge.communications

Printing

Anishinabe Printing

Inquiries

*Helen Ward-Wakelin,
Co-President*

Keith Maracle, Secretary

~

FNNBOA, 5717 Old Hwy #2,
Shannonville, Ontario
KOK 3A0

info@fnnboa.ca

<http://www.fnnboa.ca>

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have failed to meet CSA standards off reserve have been installed in our communities. Off reserve, people who purchase new homes have home-warranty programs. People on reserve who purchase new homes have none. All the more reasons to have the homes inspected by certified inspectors.

The comparison between on and off reserve can go on for pages. The point is that the chiefs and council in

authority need to move forward to reduce the gap in housing construction quality between off and on reserve. Strong leadership is a must if our communities are to move in a positive direction.

Programs like “Closer to Home” are beginning to show that we have the potential to build better homes. We need to move forward, especially with the introduction of the First Nations Housing Trust Fund, so that we can all be closer to home.

(Housing Fund – Continued from page 1)

- role of certified professionals, and fees
- Implementation of band resolutions and by-laws
- Establishment of independent body in the community responsible for housing
- Implementation of housing policies

As FNNBOA building officers inspect new homes for quality, they are faced with the challenge of ensuring these homes are built to national building code. Each band chief and council must ensure that all housing units on reserve, including those subsidized with federal funds, meet the national building code. The problem facing many communities is they have not passed by-laws recognizing they have jurisdiction over the construction of new homes. The national building code continually makes reference to “the Authority Having Jurisdiction.”

To overcome poor housing conditions, some First Nations are moving towards establishing clearly defined governance for the quality of homes built in their community. They have established building construction by-

laws as well as specification packages outlining the types of materials, construction methods and locations of equipment, ventilation requirements and access points to attic/crawl spaces. Demonstration of the above shows a commitment to ensure homes are built to a high standard.

A question important to FNNBOA was on Capacity Development Support for First Nations. More specifically, the question was: “What areas of training and support are required for First Nations to meet the sample fund access criteria?” FNNBOA gave the following suggestions:

- Training of inspectors and certification that includes several training programs available through CMHC Housing Quality Initiative
- Personal development courses such as Essential Skills for Supervisors
- More technical training courses for contractors need to be developed that offer practical advice on construction techniques, such as the Better Builder Series. For example, a contractor’s series of courses could include: Anchorage of Mobile Homes, Constructing

ICF Foundations, Window Installation and Framing Residential Houses.

- Training for band employees on implementing and operating the building-permit system
- Capacity-development funds can be used for the following activities:

- Researching and developing a building-permit system
- Introduction of band by-laws to support the foundation of the building-permit system and quality of home construction
- Training and education to ensure qualified inspectors for new home construction.
- Establishment of a land-registry program
- Quality of home construction
- Training/ licensing of buildings and contractors working in our communities
- Home-ownership courses

FNNBOA was one of many groups that were part of the consultation process.

We anticipate that the First Nations Market Housing Fund will open for business by April 2008.



Eagle's Eyes on Housing: Benchmarking Quality Control

Are house designs evaluated in relation to cost effectiveness: minimal material waste, improved construction practices, better methods and materials? Does anyone evaluate the quality of details: clarity, ease of construction, performance levels, best practices? Are house designs and details evaluated from the perspective of energy efficiency?

These reflective questions form part of the exercises developed for the Better Builder Series. Getting a handle on site performance requires a detailed analysis of current construction practices within the community. This serves as a "benchmark" against which improvements can be measured.

The other "benchmark" relates to the performance of your community's housing operations in relation to that of other First Nations in your region.

This course will assist your community in assessing how your operations compare with those of your area. In essence, the course should direct the community toward making improvements in operations and construction performance.

Of course, other decisions have a major effect on the quality of housing. Much of the technical discussion will reflect the benefits of changing building designs, improving tendering and employing a life-cycle (longer-term) approach to assessments of housing costs. At the same time, it is acknowledged that many of these decisions fall within the control of the housing administrator and Chief-in-Council. The session will arm participants with the rationale for promoting better design and construction practices to the decision-makers in their communities.



Instructor Howard Bebe with the participants of a BBS course held on the Blood Reserve.

Some communities have made it mandatory that their contractors take the course to secure employment. They have found that by providing awareness of better housing design and construction techniques, the quality of their housing stock increases. Included in these sessions are an introduction to building sciences, how houses work, mold, wood heating and improving indoor air quality and ventilation. With limited funding for main-

tenance and upgrading of existing housing stock, newly constructed housing should be designed to lower replacement/maintenance costs, while taking into account the health and safety of the occupants. The Better Builder Series is available through the CMHC Housing Quality Initiative, and is recognized by FNNBOA as a component of certification.

Other training courses available for contractors,

carpenters, maintenance workers and housing managers include:

- Developing Effective Community Strategies for First Nations Housing
- Housing Coordinator Training Programs
- Housing Policy Development
- First Nations Builder Workshop Series
- Project Management
- Certified First Nations Building Officer Training
- Arrears Management / Client Counseling
- Basic Home Maintenance
- Indoor Air Quality

Ask your regional FNBO or CMHC office for details on getting these courses into your community.



Eagle's Eyes on Housing: Dew Point and Humidity

Building sciences as presented in the Better Builders Series help explain these terms but don't answer all of the questions posed to us. For example, how much moisture is in the air?

First, the warmer the air, the more moisture it can hold.

Second, the dew point is the temperature at which the air is fully saturated and begins to condense.

Finally, relative humidity is a measure of the amount of moisture in the air compared to the amount of moisture it could theoretically hold.

Using American Standards, which measure the amount of moisture in the air by weight, the amount of water that air can hold at various temperatures is as follows (you'll see why later):

- 30° C: 30 grams per cubic metre of air
- 20° C: 17 grams per cubic metre of air
- 10° C: 9 grams per cubic metre of air

These numbers, which apply to air at sea-level pressure, are the basic physical facts needed to calculate how much moisture is in the air. Now, let's use these building science principles together.

Imagine a hot humid summer day. At 3 p.m., you measure the air's temperature at 30° C and measure its humidity at 9 grams per cubic metre of air. What would happen as this air cools to 10° C, with the water vapor in the air remaining the same? As it cools to 10 degrees, the air becomes saturated (100% relative humidity); that is, it can't hold any more water vapor than 9 grams per cubic metre. Cool the air even a tiny bit more and its water vapor will begin condensing to form clouds, leaving fog or dew on cool surfaces such as windows, grass or your vehicle. Back at 3 p.m., when we made the measurements, we could say that the air's dew point was 10° C. That is, if this particular air were cooled to 10° C degrees at ground level, its humidity would begin condensing to form dew.

Now for the Relative Humidity Connection: Remember that measurement we took at 3 p.m.? The air had 9 grams of moisture. We divide that by 30 and multiply by 100 to get a relative humidity percentage of 30 percent. The air is holding 30 percent of its capacity.

In other words, the air actually has 30 percent of the water vapor it could hold at its current temperature.

At 9 p.m., the air has cooled to 20° C. We now divide 9 grams by 17 grams (the water the air can hold at 20° C), and multiply by 100 to get a relative humidity of 53 percent. The air is holding 53 percent of its capacity.

At 3 a.m., the air has cooled to 10° C. We divide 9 by 9 and get a relative humidity reading of 100 percent. The air now has all the moisture it can hold! Cool the air any more, as can happen in late summer, and we get fog and dew.

Using these numbers, we discover that there are 67 pounds of water in a 1000 sq. foot bungalow on a full basement, 100 percent RH at 20° C. 8.34 pounds of water to a gallon means there are 8 gallons of water in the air (about a jug and a half).

Assuming your house has five air changes per minute, it means that 40 gallons of water are moving in and out of the building envelope every hour. Does this reinforce the need to control air flows in our house?

Fun Fact: If we took all the airborne moisture from a room measuring 10' x 10' x 10' (1000 cubic feet), we could fill a 12-ounce glass! (50 percent RH at 26° C).

Thinking about Building Permits in Your Community?

Express your views
with others across Canada on
FNNBOA's discussion board. Members
login to the Private Members Area and
click on the icon you see here!





AGM Update

FNNBOA held its fourth annual general meeting in Edmonton, Alberta, in conjunction with the annual Technical Advisory Services Group (TSAG) conference. TSAG's conferences are well-run and well-attended, and this year's was no exception. A conference line was set up for those participants not able to attend in person. To ensure all FNNBOA members had the opportunity to vote on the resolutions, a process to vote was set up using our website's Members Only section. The key resolution was the restructuring of the Executive, to both streamline the organization and ensure that all provinces are represented in the decision-making process. Watch for regional meetings to discuss issues arising out of motions agreed on at the AGM, and direction initiated at the Saskatchewan meetings.

For more details and other motions discussed at the AGM, go to the Members Only section on the FNNBOA website at: <http://www.fnnboa.ca>.

Election Results:

The following Executive was elected:
Bud Jobin, AB - President
Keith Maracle, ON - Secretary (term continued)
Vince Genereaux, SK - Treasurer

Resolutions:

- **Resolution Thirty Four**
Acceptance of Auditor (*Passed*)
- **Resolution Thirty Five**
Issuance of signing authority (*Passed*)
- **Resolution Thirty Six**
Restructuring of executive (*Passed*)

FNNBOA Member Profile: Vince Genereaux



Vince Genereaux, member of the Sturgeon Lake First Nation near Prince Albert, Saskatchewan currently sits as Treasurer on the FNNBOA Executive Board. A journeyman carpenter and Level-1 Inspector by trade, Vince is no stranger to housing issues, having worked in construction, contracting, inspections, training, administration, and policy development for various First Nations across Canada.

Vince recently moved from the Prince Albert Grand Council, where he worked as Housing Administrator, to the Federation of Saskatchewan Indian Nations (FSIN) as Housing Director. Housing falls under the Economic and Community Development Secretariat, which works directly with AFN, INAC, CMHC and the province to provide delivery services for Saskatchewan First Nations, both

on- and off-reserve. The goals and objectives of these working relationships are to maximize funding and to ensure all available resources within the Saskatchewan region are brought into use, including any national surplus funding. The areas of focus are:

- Research and Development - examining, investigating, assessing, assembling and providing information on developments in the private and public sectors, with regard to new materials, technical advances and manufactured goods
- Codes and Standards - monitoring and keeping abreast of new codes and standards in a range of areas such as construction, fire and health and safety codes; and advising First Nations on adoption, adaptation and application of codes and practices in their regions
- Policy Development - reviewing and analyzing federal policies regarding First Nations housing; developing policies from First Nations perspectives; revising and keeping up-to-date with housing model policies; and assisting and advising First Nations on establishing or upgrading sound housing policies

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- Training and Certification - developing and/or disseminating training courses, modules, and packages on a range of issues such as technical matters and management; ensuring certification by First Nations is recognized; and working toward increased portability of skills and certification
- Strategic Relationships - establishing and maintaining liaison and working relationships with the private and public sectors, trade unions and education institutions; and promoting expansion in areas including economic development
- Urban Development - Research Tenure (Land Designation), Infrastructure, Private Capital, Home Ownership and Social Housing

Vince's other accomplishments include managing a construction company with an average \$5 million in business each year, and employing up to 50 tradesman at any given time. He uses his 30-plus years of practical experience, along with knowledge gained through his completion of CMHC's Train the Trainer initiatives, to provide mentorship, and to deliver Housing Quality Initiative courses, such as the Better Builders Series and Basic Home Maintenance.

Vince provides advisory services to numerous First Nations on INAC's New Housing Policy (five-year planning, including maintenance policy development, housing database and performing the associated inspections). He's also involved with energy-efficient housing, including successful proposal development to Natural Resources Canada's Energuide for Houses Program. As a result, the Prince Albert Grand Council was the first aboriginal organization in Canada to have both a signed EGH Delivery Agent contract using their own aboriginal energy advisors. Home owners realized the benefits of warmer, healthier houses with the added benefits of lower utility bills and substantial retrofit grants.

Vince contributes to CMHC home-maintenance initiatives, including the videos "Because It's My Home," and "I Can Do It Myself," and the home maintenance manuals "Basic Home Maintenance" and "Home Care."

Recognizing the importance of computer literacy, Vince passed Humber College's WebCT Online Teaching Clinic – training that allowed Vince to participate in and critique Humber's online "Inspecting Existing Dwellings" course. Vince's goals are to improve housing both on- and off-reserve, by being proactive and working with First Nations, non-government and government agencies to explore and find positive solutions.

Looking Good, FNNBOA: Website Update

That's right! We've changed our look! The FNNBOA website is often the first impression someone gets of our organization. By providing up-to-date articles and a professional layout, we can be sure everyone who visits the site gets the information they need.

The new website has more tabs to help the reader locate information quickly. It also has a discussion board. Here, inspectors from across the country can share their problems and ideas with each other in the Private Members' area of the site.

FNNBOA will also be putting its newsletter on-line and sending it out to those who have requested to receive a copy through email.

The website is continuously being updated to ensure all the links work properly. The following are some stats regarding the website from January 1, 2007 until December 1, 2007:

- 7.57GB of data (enough to fit on over 5400 floppy disks, or almost 11 CDs!) have been downloaded
- 178,936 hits since January 1, 2007
- 12,957 visitors
- 5,646 unique visitors
- CMHC has the most visits
- 1,530 hits to the Private Members' area – ranks #2



FNNBOA Member Profile: Dan Butler



Dan Butler has been a Housing Inspector with Six Nations since 1992. He grew up in the community and attended a local high school, then Hamilton's Mohawk College, graduating with a drafting diploma in

1970. Having a family to support at the time, and finding the starting wages in drafting too low, he went on to join the carpenter's union and do labour-related work. During the early 80s, he lived in Phoenix Arizona, working in a copper mine for two years before moving back to the rez. He eventually started his own general-contracting business, building new homes and doing a lot of work for the Residential Rehabilitation Assistance Program (RRAP). During this time, he obtained his certificate of qualification as a general carpenter, plumber, and electrician, and also went back to Mohawk College for a certificate in Business Accounting.

"I have always tried to do the best possible job at whatever it is that I'm doing," says Dan. "One of the ways to keep up on the technical and other issues pertaining to housing is to take training courses and workshops. The other way is through experience. The technical training has helped me to understand why the things that experience taught me to do, work."

While doing RRAP projects, he was asked a few times by the chief building inspector of the Indian Inspectors Unit if he would come to work for them as a building inspector, but each time he declined. Then, in 1991, Six Nations Council hosted a course for becoming a designated Inspector for On-Reserve Housing, which he completed.

Alex at the Helm for AB CAP at CMHC

Alex Mirhady is the new Senior Officer for Aboriginal Capacity Building at CMHC's National Office. Alex joined CMHC in 1983 as an Inspector in the Vancouver branch. He continued as an Inspector in the Prince George office, covering northern B.C. from 1984 until his move to Whitehorse in 1990, where he was in charge of Ru-

ral and Native Housing, the Emergency Repair Program and RRAP. Since moving to Ottawa in 1994, Alex has worked in Program Audit and Sec 95 Portfolio Management, until joining Aboriginal Housing in 2007. Alex holds a BA in Canadian History from UBC, a Diploma in Building Technology from BCIT, and is a Certified Gen-

eral Accountant. FNNBOA looks forward to working with Alex to move aboriginal capacity-building to the next level.



Shortly after, he was offered a job as a Housing Inspector for Six Nations Housing. Although the pay wasn't great (only about a third of what he was making as a contractor) he eventually accepted the position, which he still holds. "I finally got kind of tired of the long hours and the many aggravations of running a small business, so when the opportunity came along again, I took it."

Dan's education and community involvement hasn't stopped there. When Six Nations Housing went to using a computer system, he went back to night school at Mohawk College and obtained a "Micro Computer-Aided Design" certificate in AutoCad. He has been a member of the Six Nations Council Health and Safety committee since its inception in the early 1990s. He is also the treasurer for the Six Nations Pentecostal Church.

Dan has a FNBO designation from FNNBOA, and also a CBCO designation from OBOA. He is a member of the local OBOA and HRAC chapters and attend the monthly meetings.

He has four grown children, 12 grand children and one great grandson.

One of his interests is travel. "In the old days, it used to be a lot of camping, but now it's mostly hotels when we travel," he says, of the many spontaneous driving trips he and his family take to such places as Rochester, Buffalo, Pittsburgh and Niagara Falls.

"The advice that I would give to any aboriginal youth interested in making a career in housing would be to get as much training as possible and listen to and learn from colleagues who may not have the training but have a lot more experience. You'll be a better person for it."