



Building Better

A First Nations National Building Officers Association publication

Volume 3 | Number 2 | Fall 2006

Governance & Housing Bylaws – The Way of the Future

Hundreds of homes will be built over the next year, and just as many will be renovated. FNNBOA building officers face the challenge of inspecting these homes to ensure they are built to National Building Code standards. Each band chief and council is responsible for all housing units on reserve, including those subsidized with federal funds. The problem facing many communities is that they have not passed bylaws recognizing their jurisdiction over the construction of new homes. The National Building Code continually makes reference to “the authority having jurisdiction.”

Bud Jobin, co-president of FNNBOA, and an independent professional building officer, states: “As a courtesy to First Nations, I provide a deficiency report in addition to the progress report required to access funding. Some of my fellow inspectors list these deficiencies as recommendations, clearly implying that compliance is the responsibility of the First Nation.”

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

The Westbank First Nation (WFN), on Okanagan Lake, adjacent to the fast-growing City of Kelowna in British Columbia, has implemented one of the most comprehensive sets of community laws in Canada covering the development and regulation of reserve lands.

Approximately 20 percent of WFN lands are developed and fully serviced with cable, water, sewer and other utilities. The remaining reserves are highly desirable for future economic growth,

(Continued on page 3)



Westbank First Nation – British Columbia



FNNBOA President's Message

Indian Summer is the time to get ready for winter. Putting away the barbeque, raking the leaves, drying moose meat, smoking the last of the salmon and just enjoying the great outdoors. It's a time to reflect on the good things in our lives, to savour our accomplishments, and to get ready for change. The season never lasts long, but we look forward to it every year.

For those of us in the building industry, this can be the busiest time of year. With winter coming and funding allocations finally in place, many are trying to get housing projects closed in. Foundations need to be poured and backfilled before frost.

The plans review many of us provided in the pre-planning stage was an opportunity to ensure, to the best of our abilities, that homes are built to exceed national building code standards. Minimum standards required under the NBC are just that – minimum. They do not necessarily reflect the reality of poor building sites, remoteness, severe weather conditions and the overcrowded conditions our communities face.

The question we raise is: Why should our people compromise and accept minimum standards? When talking with our colleagues across the country, we are seeing a greater disparity among First Nations communities in the building of homes and overall housing conditions.

Some First Nations are becoming leaders in building better, more durable homes. They are taking the politics out of housing, passing building bylaws, establishing maintenance programs, and introducing rental regimes to raise revenues that can be rein-

vested back into housing. This is no longer applicable only to communities near urban centres, but in remote areas as well. These communities are to be commended for asking the important question: How can we build healthier houses that last longer?

Other communities, unfortunately, are holding onto archaic housing policies, wrapped up in the politics of housing allocations, smothered in nepotism and topped off with homes that are not even built to the National Building Code's minimum standards, let alone exceed them.

FNNBOA members have always been proud of the fact that we advocate for change at the grassroots level. We will continue to provide technical advice on improved construction techniques, by working with members of our communities, advising Chiefs and Councils on existing housing conditions and how to improve them. We advocate building homes that have proper drainage and appropriate foundations, getting away from mould-infested crawl spaces and adopting better building practices that are appropriate to site conditions and occupancy loads.

Along with this, there must be a political desire within communities to move forward, by adopting sustainable housing policies that reflect local geographical conditions, ensure all houses are inspected to a high standard and generate new revenue streams. As communities shift towards improving their housing conditions, all of these efforts will have a positive impact on the lives of our people for many years to come.

- Bud Jobin

About This Issue ...

The FNNBOA Newsletter is published by the First Nations National Building Officers Association.

~

Contributors

Bud Jobin and John Kiedrowski

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
K0K 3A0

info@fnnboa.ca

<http://www.fnnboa.ca>

~

Not to be reproduced in any form without the written permission of FNNBOA.

~

Special thanks to Canada Mortgage and Housing Corporation, Natural Resources Canada, and Indian and Northern Affairs Canada for their financial support.

~

The views in this newsletter are those of the contributors and may not necessarily represent FNNBOA or the funding partners.



(Bylaws ... Continued from page 1)

as the area responds to increasing demands for development.

Westbank first introduced a bylaw to ensure homes are built to National Building Code in 1979. Since then, the community has developed bylaws that focus on the following areas:

1. A series of prohibitions relating to building or occupying a place without a permit.
2. Duties and responsibilities of the person building or occupying the home.
3. Duties and responsibilities of the building inspector.
4. Powers of the building inspector, including stop-work orders.
5. Use of building permits, including fees.
6. Appealing the decision of the building inspector.
7. Relocation of buildings.
8. Demolition of any building and required permits.
9. 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, prefabrication of homes, swimming pools, use of canopies and awnings, the role of certified professionals, and fees.

In 2004, Westbank signed a Self-Government Agreement which gives it jurisdiction over areas such as land management, resources, language and culture.

Westbank First Nation is a good example of how a community can take control and ensure that homes are built to National Building Code. As First Nations assess their existing housing stock and look to build new homes, bylaws such as these will become increasingly important. They are the way of the future.

To view a copy of Westbank First Nation's building bylaw, see www.wfn.ca.

A sample bylaw is also available from FNNBOA at info@fnnboa.ca.

What can bylaws do for your community?

1. Establish building standards that work in your geographical zone.
2. Reduce the risk of liability to Chief and Council.
3. Produce better-built houses that have less mould.
4. Establish a process of accountability.
5. Lay out the process for development.
6. Building permits restrict the construction of homes to approved residential areas.
7. Building permits allow the Building Officer to do plans reviews that ensure compliance with community standards.
8. Building permits allow building officers to issue stop-work orders if homes are not being built to community standards.
9. Bylaws spell out who can build and live in your community.
10. Bylaws establish lot sizes and land use.

What happens with no bylaws?

1. Shortened life spans for houses.
2. Chief and Council risk liability.
3. The same old mouldy houses.
4. No one takes responsibility for houses that are unsafe and don't last.
5. Uncontrolled development leaves our grandchildren with no place to build.
6. Increased infrastructure costs to service rural housing.
7. Poor-quality housing and renovations.
8. Costs more over the long term for housing.
9. Little or no control on the development of housing.
10. Lack of housing investment.

One of the first considerations for bylaws should be the compulsory application of the National Building Code and National Fire Code. This will go a long way toward ensuring that building and housing construction and operation conform to safe fire-protection practices. Working with these two codes, or alternative codes, communities can design regulatory requirements and practices to fit their specific circumstances. Each community should obtain advice on what bylaws are needed.

For more information, contact Bud Jobin at (780) 523-8357 or send an email to info@fnnboa.ca.



Objective-based codes and building in First Nations communities

This year, Canada's building-code system has changed in response to the demands of consumers, builders, designers and those responsible for compliance. The Canadian Commission on Building and Fire Codes is responsible for the development of the building, fire, and plumbing codes adopted in the objective-based National Building Code (NBC). While jurisdictions across Canada adopt the new code, First Nations communities will also be affected by the changes, and must ask some key questions:

What are objective-based codes?

Objective-based codes use the current mixture of prescriptive and performance requirements, but also provide the code user with a great deal of additional information to help the building officer interpret the code, and to help in evaluating "equivalents" or alternative solutions⁽¹⁾. In most communities, acceptable solutions found in Division B will be essentially the same as found in the 1995 national code. What is different now is that the code explains why a provision exists. The new provisions are linked to application statements (detailed explanations of what the provisions apply to) and intent statements (on the specific intent of the provisions). The code provisions are also linked to objectives (describing the overall goals code provisions are intended to achieve) and to functional statements (describing conditions that help satisfy the objectives).

How do they work?

Objectives describe the overall goals of the code's provisions in very broad terms. They define boundaries around areas addressed by the code. It is fairly widely acknowledged that safety, health and accessibility are principal objectives of the National Building Code, in addition to protection of buildings.

Objective-based codes differ from current codes in that each provision is linked to:

- An overall objective the code helps to address such as safety or health.
- One or more functional statements regarding qualitative conditions to be achieved.
- The specific intent of a particular code provision, and a detailed statement of what the provision applies to.

Why objective-based codes?

Although Canada already has very good codes, there is room for improvement in four areas:

- The scope of the codes needs to be clearer.
- The intent behind code requirements should be clearer.
- The codes should be more accommodating to innovation.
- The codes should be easier to apply to renovation.

Having everyone understand the reasoning behind code provisions ensures that the quality of work performed in our communities is consistent with the

code's goals for ensuring health, safety, accessibility and protection of the building from fire and structural deficiencies.

When will they come into effect?

Code publication was completed in 2005. Adoption of building bylaws is inconsistent across the country. Communities that have adopted building bylaws, including permits to ensure community development is in order and consistent with public health and safety, will embrace the new codes. The administrative requirements are clearly spelled out in Division A. Other communities have Band Council Resolutions that adopt the most recent edition of the National Building Code and are also impacted by the new codes. Funding agencies increasingly request, in "terms of reference" documents, that housing projects be in compliance with NBC codes and relevant standards.

What are the benefits?

Objective-based codes will be more consistently applied across the country. If everyone shares a common understanding of what the code is trying to achieve, they are more likely to interpret its requirements the same way.

Existing prescriptive and performance requirements will still be available, but at the same time, additional information in the objectives, functional statements, intent statements and application statements should greatly facilitate the evaluation of equivalents and alter-

(Continued on page 5)



(Codes ... Continued from page 4)

native solutions. As an example, renovation of existing buildings often involves coming up with alternative solutions for preventing the re-emergence of mould.

How will the codes impact inspections?

Since the existing prescriptive and performance requirements will still be available, disruption to code users will be minimal. Past performance, previously used to ask for variance from the code, may no longer apply. First Nations building officers will need a mechanism to review alternative solutions. Objective-based codes will also bring about the contractor’s request for a second opinion, a mechanism for appeals to final decisions.

How will they impact First Nations communities?

In the past, the building officer was concerned mostly with new construction. With a very strong movement toward the preservation of existing building stock, regulation is needed to ensure public health and safety. The NBC is most likely to be applied to an existing building when an owner decides to renovate, to change its use or to build an

addition; sometimes the housing authority decrees that buildings must be altered for reasons of public health and safety. Application of the code to existing buildings requires careful consideration of the code’s objectives, to determine how the existing building may be altered to meet the objectives⁽²⁾. The benefits derived from code compliance in renovation are the same as in new buildings. However, each community will have to weigh the increased cost of implementing a design solution intended for a new building in an existing building, and develop balanced housing standards for the building officer to follow.

How will they impact First Nations housing policies?

Under the new concept of “core codes,” national codes address only those issues that all provinces and territories agree they should cover. Any additional issue a jurisdiction wishes to deal with would appear in a separate document published by that jurisdiction. It is clear that meeting the minimum code provisions will not address all of the issues; for example, the amount of natural light required for “well being.” Additionally, since installing a bathroom door is for privacy, and does not meet any of the

objectives of the NBC, it will be left up to FN housing policies to address these and other cultural issues⁽³⁾.

How will it impact our bylaws and policies?

For those communities with band bylaws adopting the NBC, this may be a good opportunity for review and revision. For those communities that do not have any bylaws or policies, this is an excellent time for band and tribal councils to adopt an objective-based code. Such bylaws will provide leadership and help to build better homes in your community.

For more information on objective-based codes or bylaws, please send an email to info@fnboa.ca.

- (1) One of the aims of including intents, objectives, functional statements and application statements in objective-based codes is to allow comparison of proposals for equivalents to code requirements. Equivalents will be named “alternative solutions” in the 2005 codes.
- (2) A significant effort is underway to develop specialized knowledge and criteria that can achieve safety in the renovation of existing buildings. Contact your local CMHC AB CAP department for information on the Quality Housing Initiative and for training on IAQ, Building Sciences and the importance of Ventilation.
- (3) Culture is defined as “that’s the way we do things around here.”

FNNBOA Profile: Rosie Charles

Ground-breaker, trail-blazer, leader. These terms all apply to Rosie Charles, member of the Lac La Ronge Indian Band (Saskatchewan), who has come a long way breaking through gender barriers in the male-dominated

field of housing.

Growing up in La Ronge, Charles was all too familiar with poor on-reserve housing conditions, and became increasingly concerned for the health and safety of her people.

It was that concern that ultimately led her to choose her career path. In 1995, she was offered a job as the community’s Housing Rental Clerk. A year later, Charles completed, with top honours, a

(Continued on page 5)



Eagle Eyes on Housing: Improving indoor air quality and crawl spaces

A large number of our homes are lost prematurely every year due to problems associated with crawl spaces. The decision to build on a crawl space should include an analysis of lifetime cost versus immediate capital expenditures. Ask the question: How long do houses built on crawl spaces last, compared to other foundation systems?

Any homeowner whose house sits on a crawl space can list the problems:

- Mould and mildew, high humidity levels, wood rot, unpleasant smells
- Pests, such as insects and mice
- Water leakage through foundation walls; standing water
- Cold floors and drafts
- Frozen water lines

Improving indoor air quality (IAQ) requires a basic understanding of building sciences: Warm air rises (the stack effect), high air pressure moves to low air pressure, hot air moves to cold, and high moisture moves to low moisture. Mould likes a humidity level above 60 percent.

The new codes are out, and yes, vents in crawl-space walls are still there. Where in Canada is that a good idea? Let's increase the humidity level in summer by introducing warm humid air into a cool environment where it can cool and condense — even better, let's punch holes in the walls so we can increase our heating bills and invite in mice and insects!

Seems silly when put that way, doesn't it?

We know that warm air rises, and that humidity levels rise with the availability of moisture. We also know that mould needs moisture to grow. In “dirty crawl spaces” (you know the ones: no ground cover, used to store old clothes, papers, books, boxes — a delicious buffet for mould), the warm air rises, sucking up



A “dirty” crawl space



A “sealed” crawl space

moisture from the dirt floor and spewing mould spores into the main-floor living area, through cracks in the heating ducts and crawl-space access points. This can seriously affect the health of the occupants.

Rather than invite in unconditioned air, we should ensure that all the air in our

homes is conditioned, and that we prevent the entry of moisture. A better idea is to install a ground cover in the crawl space, to seal the moisture-laden dirt, and provide an effective air barrier by sealing the foundation walls, joist-space cavities and cracks. This keeps ground moisture out, and everything in the crawl space from being exposed to unconditioned air.

We should provide ventilation to that area. The crawl-space vent is still in the code book, but if you analyze it, passive vents are for non-heating seasons only. In the heating season, mechanical ventilation is a requirement. Why not provide mechanical ventilation year-round by interlinking the principal exhaust with the crawl space?

Other possibilities include using vapour barriers that are more durable than Polyethylene. An internet search on “dirty crawl spaces” will provide more information on durable Vapour Barrier encapsulating systems, as will the “About Your House” series of pamphlets available at the Research and Development Library at CMHC, www.cmhc-schl.gc.ca. Ensure the dryer vent is ducted to vent to the exterior. Moisture-laden air from dryer vents, besides promoting mould growth, is full of dryer lint, which can become a fire hazard.

Awareness and information are key to better understanding indoor air quality.

(Continued on page 7)



On-Line Training: A First for First Nations Building Officers

FNNBOA continues to provide leadership for building officers servicing our communities. Over the years, inspectors have voiced concern over the lack of training courses available apart from diploma programs. Others have complained that no training is being delivered. Cost and time involved in training are also challenges.

In October, 2006, FNNBOA received funding from the Ontario Ministry of Training, Colleges and Universities to put the course “Inspecting Existing Dwellings” on-line. In addition, funds were provided by CMHC, INAC and Natural Resources Canada (NRCAN). The Inspecting Existing Dwelling course is designed around the five main technical elements for residential building basics. These include Part 1: Building Science; Part 2: Residential Buildings – Building Systems; Part 3: Inspections; Part 4: Report Writing; and Part 5: Appendices that include references to technical questions.

FNNBOA has entered a partnership with Humber College in Toronto, which will be making the course available on-line.



FNNBOA also has an agreement with CMHC and NRCAN to put the course on-line. This will allow inspectors to study at home on their computers and in their spare time. It is anticipated that the course will be ready for Spring 2007. Humber College will include it as part of its diploma program on home inspections. Anyone interested in

gaining further knowledge of residential home inspections can take the course. For building inspectors, it is a requirement for certification. Individuals who successfully complete it will receive a diploma from Humber.

FNNBOA continues to work in partnership with colleges and other training institutions to ensure First Nations building officers have access to important

training programs. Currently, FNNBOA has an arrangement with the Alberta Safety Codes Council and the Ontario Ministry of Housing and Municipal Affairs to provide training courses to First Nations. FNNBOA will continue to facilitate educational opportunities for inspectors working in First Nations communities, and to address the training gap that has existed in the past.

(Eagle Eye ... Continued from page 6)

Ask your regional CMHC AB CAP for training details on Let's Clear The Air, IAQ, mould remediation and basic home maintenance.

Strategies for solving IAQ problems

Remove the sources: Eliminate smoking inside the house. Clean regularly using unscented cleaning and personal care products. Remove carpets and pressed

wood furniture from the bedroom. Remove paints, solvents or cleaners and store outside the home. Select furnishings with no or lower emissions. Ensure CO detectors are working properly. Check for carbon monoxide, back drafting. Avoid pesticide use.

Seal surfaces: Where possible, seal exposed surfaces of pressed woods prior to assembly. After assembly, seal undersides and backs of pressed wood furniture with acrylic sealer, aluminum foil or poly. Seal any exposed insulation. Install

ground sheet covers.

Ventilate: Exhaust stale, moist air from kitchens and bathrooms using good-quality, quiet fans. Provide fresh air to bedrooms and main living areas and install return air vents.

Filter: If you have a problem with dust or dusty air, always remove the sources first. Running the furnace fan continuously with a good filter (e.g. a MERV 10 filter or better) will help reduce airborne dust and particulate, but is never as effective as source removal.



FNNBOA Profile: Kathleen Griffin

Kathleen Griffin, current housing advisor for the Yellowhead Tribal Council in Enoch, Alberta, is a true westerner. She grew up in a small town west of Prince Albert, Saskatchewan. After graduation she moved to Saskatoon, Saskatchewan to attend Central Pentecostal Bible College. She then moved to Moose Jaw to take architectural engineering at the Saskatchewan Institute of Applied Science and Technology (SIASST), Palliser Campus. From there she moved to Regina for additional classes. It was here she met her husband, Tim Griffin, and moved to Burnaby, B.C. shortly after getting married in 1995. She attended the British Columbia Institute of Technology, in the Building Technology program, which gave her a broad introduction to the construction field. She lived in the lower mainland for five years, working for Bumen Architecture and Code Consulting after graduation. She enjoyed working for this firm, where she was able to do research on code equivalencies and found the field appealed to her.



Eventually moving back to Saskatchewan, Griffin completed the Saskatchewan Building Official course and obtaining her Class 1 Building Official License. She worked at the Saskatoon Tribal Council as a Building Inspector for a year, before she took her current position this past summer. Priorities right now are getting new houses complete before winter sets in. She plans to review construction procedures for preserved wood foundations before the next building season begins. Training is another issue she wants to focus on in future. “Through my last two jobs I have met many wonderful people in the industry, who have all been extremely helpful and are a huge part of my career success,” she says. “I enjoy learning and hope to one day become as knowledgeable as my predecessors!” Griffin loves to travel, and juggles her career with a busy family life, which includes daughter Mackenzie and sons Avery and Caden, ages 6, 5, and 3.

(Profile: Rosie ...Continued from page 5)

First Nations housing coordinator course offered by the Saskatchewan Institute of Applied Science and Technology (SIASST). She was determined to complete this course no matter how hard it was. The terminology of the National Building Code had her staying up till the wee hours of the night to make sure she fully understood what was going to be taught the next day. “I will always remember the laughter of the group teasing me about the meaning of “stud,” she recalls. In 1997, she was offered the job of CMHC project manager.

“One of my personal trials was that I was the only woman who could show the men that I did know what I was talking about, and was not just there for the looks,” says Charles. “A lot of men told

me I wouldn't last more than a year. They sure gave me a hard time about anything and everything.”

Now, Charles is an example for others to follow. “Working in the area of housing gave me the strength to stand up for myself and tell my friends that they can do the same and not be afraid to say what you feel. That makes you a whole lot stronger as a woman.”

Charles has worked most of her 10 years in the field as the band's housing manager, dealing with arguably the most challenging and complex issues facing First Nations communities today —housing.

“From my perspective, working in housing is one of the most stressful jobs a person can work for in any First Nation, and I give credit to those people who have been in this area for many years,”

says Charles.

During the course of her employment, Charles has taken a variety of courses to do her job more effectively. They include critical stress management, arrears management, budget development, housing-policy development, developing a property management plan, home maintenance plans, client counselling, and real-estate/property management.

In the last couple of months, she has taken and completed the Inspection to Existing Dwellings and Advanced Rehabilitation Training, offered by FNNBOA.

Charles, along with husband Wayne Macdonald, a RCMP corporal, and her son and daughter, currently live in Prince Albert.

