

Fall 2022 Newsletter

Volume 55, 2022

Dale Wagner: Editor



**Saskatchewan
Building
Officials
Association Inc.**

SBOA PRESIDENT'S REPORT

FALL 2022

Thanks for attending the 2022 Saskatchewan Building Officials Association Fall Conference in Saskatoon, Saskatchewan. Our fall conference this fall has brought in more than 125 attendees in person and virtual, this is a great number for our association.

On behalf of the SBOA Board of Directors I'd like to thank everybody who joined us at our fall 2022 conference.

A huge thank you to our conference host committee, as well as our conference chair Mr. Neil Marsh for the educational and informative conference agenda that was put together for this week. Our lineup of speakers for this three-day conference, included professionals from our very own SBOA membership, as well as industry and product specialists.

2022 has been a busy year for building officials throughout Saskatchewan. Building construction investment in Saskatchewan has risen by 87% since August of 2021. Additionally, the number of building permits in 2022 has risen by 39 percent. That's a substantial increase in workload for all building officials and yet I still see the same number of inspectors at conference. Hopefully that number improves with better access to exams and education through our association.

Executive Director

In July the SBOA Board of Directors parted ways with our then acting Executive Director and re-posted the position. After a short posting, interviews were conducted for the position and an offer was made to our new Executive Director. I'd like to welcome Amanda Prevost as the new Executive Director for the Saskatchewan Building Officials Association. Amanda has been working with us for a few months now. She has done great work and we are looking forward to working with her in the future. Thank you for joining our team, Amanda.



Saskatoon Member-at-Large

On April 4 SBOA reached out to the City of Saskatoon for a member at large representative to sit on the board after the previous seat was vacated by Mark Magnus. Kara Fagnou, Director of Building Standards, put forward Erin Brakefield's name. Erin is the Business Manager for Building Standards at City of Saskatoon and manages their customer service teams and guides their management team in the delivery of an integrated customer service and business processes associated with the administration of the building and plumbing permit program. Simply put she guides them in connecting technical requirements with the customers using our services. Thank you, Erin, for volunteering to work with us and we look forward to working with you on future projects.

Building Standards Liaison

After a request was submitted to Building Standards to select a liaison to sit on the SBOA board of directors, Mr. Marvin Meickel has put forward Ty Tweidt's name as their representative. Many of our members have worked with Ty in the past, and we are looking forward to working with him in the future.

Saskatchewan Appeals Board

In April 2022, SBOA committee completed a membership-wide canvas to solicit names to be put forward to the building, technical safety standards branch as SBOA's nomination for the appeals board. On September 14th, SBOA received confirmation from Marvin Meickel that the appeals board selection process had concluded, and they are advancing all names forward to executive committee. SBOA will have a representative on the appeals board. That is great news to hear for our membership.

(Continued on next page)

President's Report

(Continued from previous page)

Appeals Board Rulings – Public

On September 13 SBOA received an email from Marvin Meickel indicating that all appeals board rulings are now being posted online for the public. A copy of this link was sent to all SBOA members. All third-party information has been redacted. This has been a goal of the SBOA membership for a number of years. Although appeal board decisions are not precedent-setting, they do give light to how certain orders may be reviewed or looked at. They can also be a great education piece when learning how to write proper orders.

Alliance of Canadian Building Officials Association (ACBOA)

Chris Gates is currently our representative at ACBOA's table and sits as vice president. The future of this association is bright. As harmonization is a federal goal, ACBOA is being looked at and considered as the central contact and distribution point for consistent education and training of Building Officials throughout Canada. Because of this national recognition, NRC, and other national organizations are providing funding to ACBOA to develop new courses and training that would be available to all building officials throughout Canada. Imagine a world, where the same building code is used with the same training and certification exams! Now that would be harmonization.

SBOA Policy Review

On October 18, 2022, the SBOA Board of Directors sat together and reviewed the SBOA policies and bylaws. The original policy was constructed in an effort to guide us on the development and implementation of the SBOA certification program and exams several years ago. This review was completed to highlight some inconsistencies and how we function as a board and organization compared to how the policy was originally written. These highlights will be reviewed, and changes may be made at the later meeting. A policy review is required every couple of years.

New Code Effective as of January 1, 2024

SBOA has confirmed and sent out an email to the membership that the adoption date of the new 2020 National Building Code of Canada will be on January 1, 2024.

SBOA Strategic Plan/Mission Statement

SBOA is going to look at the possibility of developing a strategic plan and mission goal statement to help future direction and decisions for the board and association. ACBOA has completed their study and is now in the implementation portion of the process. There is a possibility that SBOA can use portions of their study as they closely reflect our provincial goals and mandates.

Improving the Profile of Building Officials

SBOA is working towards a plan to improve the profile of building officials in the province. How many inspectors get along with your managers? How many inspectors get along with their elected officials? This shows the disconnect of what the public thinks about building officials. To the public we are a pain in the ass, we are red tape, we are the reason that their development didn't go ahead. Instead, the public needs to know we are the reason they sleep soundly at night, we are the reason they are comfortable walking into a football stadium with 30,000 people with no concern, and we are the reason they can go to the 31st floor of a building and not think twice about fire safety.

Home Builders' Association

With the new 2020 NBC coming into effect on January 1, 2024. We will be reaching out to the Home Builders' Association to see how we can help to develop a smooth transition from the 2015 to the 2020 NBC.

Future Projects

SBOA has accomplished a number of projects over the past couple of years and looks to build on them in the future. Projects like improving the image of Building Officials, development of an SBOA mission statement, looking into a SBOA strategic plan, working with industry, updating the BC TC course and adoption of the 2020 NBC are some but not all the topics currently under review.

Lastly, I'd like to say thank you to our board of directors. Everyone on the board are volunteers and take time away from work, family, friends, and even events to come together in a joint effort to support building officials throughout the province. Thank you for your dedication to building officials in Saskatchewan. Stay safe and take care.

Ryan Shepherd, President
Saskatchewan Building Officials Association INC.

Wednesday, October 19, 2022

Canadian Wood Council – Mass Timber Construction

Rory Koska

Wood WORKS! (Also known as Cecobois in Quebec) is a Canadian Wood Council program, which is industry led and is intended to help increase the use of wood in non-residential, mid-rise and tall building markets in Canada. The initiative seeks to build proficiency in using wood through training, networking and direct technical support.

Rory introduced us to their new tool called Code Chek to check to see if some building designs would be in compliance with current codes. What is Mass Timber Construction?

There are 20 different manufacturers in Canada.

Nail Laminated Timber-floors in old warehouses as an example. They are fastened together with nails.

GLT Glulam Beams CLT Cross laminated Timber. LSL Laminated strand lumber. DLT Doweled Laminated Timber. MPP (Mass Plywood Panel). Some of the oldest structures are built of wood as early as 11th century. (firetests.cwc.ca) This test was the world's largest mass timber fire test.

If the evaluation results show that lightweight wood-frame, heavy timber and/or encapsulated mass timber construction is permitted, the least restrictive requirements and applicable code reference(s) are displayed on the screen. Additional options with more restrictive requirements permitting lightweight wood-frame, heavy timber and/or encapsulated mass timber construction are accessible via the Code Articles button on the evaluation screen.

If the evaluation determines that lightweight wood-frame, heavy timber and/or encapsulated mass timber construction is not permitted under a particular building code's acceptable



Ryan Shepherd and Rory Koska

solutions with the user's input choices, information is provided regarding:

- possible changes that can be made to the project characteristics that may permit the building to be of some form of wood construction;
- references that may be of assistance in the development of an alternative solution; and,
- the wood elements permitted in a building required to be of noncombustible construction.

Building Code Training for Canadians – Series 1 – 2010

This online course is a key prerequisite in obtaining a Class 1 Building Official License.

“A comprehensive home study of the National Building Code of Canada, one & two unit dwellings.”

Please note that applicants will not be able to register over the phone

For information contact
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at 306-848-2500 or [wbexams@
southeastcollege.org](mailto:wbexams@southeastcollege.org)
www.southeastcollege.org
P.O. Box 1565
Weyburn, Saskatchewan S4H 0T1

S.B.O.A.

LIST OF NEW MEMBERS

June 4, 2022 to December 19, 2022

Mark Anakaer – 22	Regina, SK
Mike Courchene – 22	Regina, SK
Brendan Donald – 22	Regina, SK
Cristen Korchinski – 22	Moose Jaw, SK
Rene Kreutzwieser – 22	Regina, SK
Mike Kudelis – 22	Regina, SK
Tom Miller – 22	Regina, SK
Joshua Nitz – 22	Qu'Appelle, SK
Alex Olson – 22	Regina, SK
Mike Ruecker – 22	Regina, SK
Ryan Verstegen – 22	Swift Current, SK
Myron Wiebe – 22	Regina, SK

Wednesday, October 19, 2022

Fire Extinguisher Placement - NFPA 10 Dale Wagner

Portable fire extinguishers are required in most occupancies, but the type, size and placement can be difficult to assess. The NBC passes us on to the NFC, which refers us to NFPA 10 and a range of ULC standards. Dale de-mystified these often overlooked requirements! The following outline spells out the presentation.

1. Extinguisher classification.
2. Ratings for extinguishers.
3. Building classifications.
4. Where to place extinguishers?
5. How many extinguishers are required?
6. Maintenance and Inspection.

9.10.20.4. Portable Extinguishers

1) Portable extinguishers shall be installed in all buildings, except within dwelling units

Class A fires are fires in ordinary combustibile materials, such as wood, cloth, paper, rubber, and many plastics.

Class B fires are fires in flammable liquids, combustibile liquids, petroleum greases, tars, oils, oil-based paints, solvents, lacquers, alcohols, and flammable

Class C fires are fires that involve energized electrical equipment.

Class D fires are fires in combustibile metals, such as magnesium, titanium, zirconium, sodium, lithium, and potassium.

Class K fires are fires in cooking appliances that involve combustibile cooking media (vegetable or animal oils and fats).

Class A — From 1-A through 40-A

Class B — From 1-B through 640-B

Class C — No tests

Class D — Test fires vary

Class K — Recognized by UL, ULC since 1996

Fire Extinguishers are only to be used to extinguish fires in the incipient stage

Definition: in an initial stage; beginning to happen or develop

Class A portable fire extinguishers are rated from 1-A through 40-A.

The Class A rating of water extinguishers is primarily based on the amount of extinguishing agent and the duration and range of the discharge used in extinguishing test fires.

For a 1-A rating, 1¼ gallons (5 L) of water are required. A 2-A rating requires 2½ gallons (10 L) or twice the 1-A capacity

Class B Ratings — Extinguishers suitable for use on Class B fires are classified with numerical ratings ranging from 1-B through 640-B.



Bob Baker and Dale Wagner

The rating is based on the approximate square foot (square meter) area of a flammable liquid fire that a non expert operator can extinguish. The non expert operator is expected to extinguish 1 square foot (0.09 m²) for each numerical rating or value of the extinguisher rating.

Class C Ratings — There are no fire extinguishing capability tests specifically conducted for Class C ratings. Because electricity does not burn, extinguishers for use on Class C fires receive that letter rating because Class C fires are essentially Class A or Class B fires involving energized electrical equipment. The extinguishing agent is tested for electrical Non conductivity. The Class C rating confirms that the extinguishing agent will not conduct electricity. The Class C rating is assigned in addition to the rating for Class A and/or Class B fires.



Greetings by Councillor David Kirton

Thursday, October 20, 2022

The conference began with opening remarks from President Ryan Shepherd.



Cynthia Starchuk and Dale Wagner

Wednesday, October 19, 2022

Day in the Life of a Building Official

Cynthia (Cindy) Starchuk is the chair of the SBOA Education Committee. Cindy's roles include overseeing the Building Code for Canadians course and its team of technical advisors, and organizing educational opportunities for building officials throughout the year. She is a Senior Building Official for the City of Swift Current since June 2016. She also has her own consulting business where she assists clients in occupational health and safety and building and fire safety. Cindy has worked in all levels of government as well as the private sector which provides her understanding of the challenges faced by people on either side of the red tape line. This session used photos from actual inspections as a starting point for great discussions about a wide variety of issues that building and fire officials are sure to encounter.



Five Guys Named Dave performed at the banquet.

Thursday, October 20, 2022

Peter Wotherspoon, Gov of Sask, Building and Technical Standards Branch - Spatial Separations

Peter Wotherspoon is an assistant chief Building Official at the Building and Technical Standards (BTS) Branch of the Ministry of Government Relations for the Province of Saskatchewan. He provides technical support to Saskatchewan's Chief Codes Administrator on Canada's model national building and energy codes and their referenced technical standards. He has obtained a Bachelor of Science in Engineering degree from the University of Saskatchewan and is registered as a Professional Engineer. He holds a Certificate for Permission to Consult in mechanical engineering for HVAC, plumbing and fire protection systems; as well as, in the area of structural engineering for wood, steel masonry and concrete structures and foundation systems. He has obtained LEED AP credentials from the Green Building Council and is working towards obtaining a Project Management Professional designation from the Project Management Institute. His background includes owning and operating both a consulting engineering firm and building official consulting firm prior to working with BTS, working as Project Manager with MHPM Colliers Project Managers overseeing the construction Mosaic Place Events Centre and Yara Soccer Centre in Moose Jaw, working as a licensed Class 3 Building Official for the Building Standards Branch at the City of Saskatoon and at Professional Building Inspections Inc., and working as a Professional Engineer for LaFarge Canada Inc. He currently volunteers as a Technical Advisor for the Building Code Training for Canadians course at Southeast Regional College and provides technical support to the Saskatchewan Construction Standards Appeals Board. He is Saskatchewan's representative at the Federal Provincial Territorial Energy Code Implementation Group (FPTECIG) and provides technical assistance to stakeholders that have a vested interest in Saskatchewan's construction standards.

SBOA Newsletter is published twice a year for the information of our association members. Its purpose is to inform the members about conference topics and upcoming events. Comments, story ideas and suggestions about contents and format as well as any retirements or deaths, should be directed to:

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Ted Cullen, Edwin Slobodian and Dale Wagner

Thursday, October 20, 2022

Quik-Therm Composite Structural Roof and Wall Insulation Systems Edwin Slobodian, owner Effective Thermal Solutions Ltd.

It's all about the physics.

Over the past 11 years Quik-Therm has collaborated with many of North America's finest Building Science organizations. As the result of 30+ ASTM C1363 effective R-value system tests, a plethora of air, vapor, structural and fire tests and hydrothermal analysis, Quik-Therm has been able to design and develop several physics based, multi-functional weatherization insulation technologies that do more for less...faster.

Quik-Therm has been able to design and develop several physics based multi-functional weatherization/insulation technologies (systems). The composite 936 Connect (low rise wall system) and Matrix roofing insulation system manage moisture while virtually eliminating the negative effects of thermal and point bridging. All insulation products get wet — they just do. Absorption of only 20 percent moisture causes up to a 50 percent loss in R-value performance. So while its critical to keep moisture out (the building industry does a pretty good job of this), it's important to create designs that mitigate the negative effects of moisture.

Thursday, October 20, 2022

SBOA Business Meeting

Minutes and reports from the Executive, Directors and Committees were presented.

The executive is President Ryan Shepherd, Vice President Bob Baker, Past President Chris Gates, Education Cynthia Starchuk, Certification Chris Gates, Membership Jerry Wintonyk, Conference Neil Marsh, Secretary Virginia Shepley, Treasurer Amanda Kaufmann, Regina Member at Large Myron Stenka, Communications Dale Wagner and Executive Director Amanda Prevost.



Cynthia Starchuk and Kelsey Longmoore

“What Do YOU Want”

Breakout Session

Kelsey Longmoore is based in Regina, and is the Founder and Dreamer at Kilo Lima Code. She has been in the industry since 2015, and has worked as both a municipal Building Official at the City of Regina and as a professional Code Consultant practicing in both Saskatchewan and British Columbia. Kelsey and the Kilo Villagers are on a mission to demystify the Construction Codes through education, tools and community. Due to her path, she understands challenges from both sides and really believes that with a little more understanding of each other, the entire process will go smoother for all parties involved. Kelsey's passion for better Codes education will be discussed in her break-out session “What do YOU want?”.

The goal of the Kilo Lima Code School is to connect those who want to learn with those who want to teach, in a single convenient location. We know that people are busy, life throws curve-balls, and strict learning schedules can be a challenge. All our courses are self-paced so you can learn when it's best for YOU. The school also facilitates Q&A with the instructors, and collaboration with other students. This all sounds great, but the challenge over the last few years is that we don't know what learners really want. Stop by this session to check out what courses are currently available, find out more about the structure of the courses, and chat with Kelsey about desired courses...or cats and cookie dough ice cream.



SBOA Executive

Thursday, October 20, 2022

CAN/ULC S1001 Testing of Integrated Fire Protection and Life Safety Systems

Kresten Krogsgaard, Building Code Engineer, Building Standards & Inspections, City of Regina

CAN/ULC S1001 has been codified in the National Building Code, Section 3.2.9.1 and is a requirement of all new construction where fire protection or life safety systems have been installed. Additionally, all existing buildings require this same integration testing if it has not been completed previously.

- **Sentence 3.2.9.1.(1) & 9.10.1.2.(1):** Where fire protection and life safety systems and systems with fire protection and life safety functions are integrated with each other, they shall be tested as a whole in accordance with CAN/ULC-S1001, "Integrated Systems Testing of Fire Protection and Life Safety Systems," to verify that they have been properly integrated.
- **Main point:** Need to ensure systems are talking to each other properly as per CAN/ULC-S1001. Are they working together properly?
- **Sentence 6.8.1.1.(1):** Interconnections between fire protection and life safety systems shall be tested and maintained in conformance with CAN/ULC-S1001, "Integrated Systems Testing of Fire Protections and Life Safety Systems."
- **Main point:** this is an ongoing operational requirement.

Example 1: Elevator & Fire Alarm System

- NBC Clause 3.2.4.11.(1)(g) requires a smoke detector in an elevator machine room
- NBC Sentence 3.2.4.11.(4) requires that when that smoke detector is activated, the elevator(s) served by that machine room shall recall
- NBC Article 3.2.4.14 also has rules for when smoke detectors in elevators lobbies on the primary recall level are required in order to send the elevator to an alternate recall level (non-sprinklered buildings).
- An integrated test would ensure that these actions occur:
 - Machine room smoke detector activated → elevator recalls to primary level
 - Smoke detector in primary level also activated → elevator recalls to alternate level
 - ** People need to be stationed in the various locations to confirm these functions are actually happening **

Example 2: Hold-Open Device & Fire Alarm System

- NBC Article 3.1.8.14 contains the requirements for hold-open devices used on a closure in a fire separation.
- Assume we have a 3-storey building where all the exit doors into the exit stairwells have hold-open devices. We'll also assume the building has a single-stage fire alarm system.
- Clause 3.1.8.14.(2)(a): the hold-opens release upon any signal from the fire alarm system.
- Sentence 3.1.8.14.(3): since these are exit doors, we also need smoke detectors near the doors (installed as per CAN/ULC-S524). Activation of one of these would also close the doors
 - Note: In this example, a smoke detector adjacent to any of the doors on hold-opens would cause all hold-opens to release since activation of any smoke detector would cause a signal from the fire alarm system. The smoke detectors required to be



Chris Gates and Kresten Krogsgaard

adjacent to these doors with hold-opens just provide additional detection ability for these "critical doors" (more detection protection)

- An integrated test would ensure that these actions occur (for our example):
 - ANY signal from the fire alarm system causes all hold-opens to release and the fire door shall close and latch
 - ** People need to be stationed in the various locations to confirm these functions are actually happening for ALL fire doors on hold-opens **

Example 3: Sprinkler System & Fire Alarm System

- NBC Sentence 3.2.4.9.(3) requires that a sprinkler system be electrically supervised.
- Let's assume we have a simple system consisting of some water supply control valves (x2) and some flow switches (x2) that are electrically supervised by a single-stage fire alarm system
- An integrated test would ensure that these actions occur:
 - Each flow switch should be tested. Cause water to flow through the test port for the switch being tested. The flow switch detects the flow and causes the fire alarm to sound (as per NBC Sentence 3.2.4.3.(1)). Ensure annunciator displays correctly.
 - Note that notification shall also be sent to the fire department as per Sentence 3.2.4.7.(2).
 - CAN/ULC-S1001 has specific testing for the integrations between fire alarm systems and fire signal receiving centers as well.
 - Each water control valve should be tested. Operate each valve and ensure the fire alarm panel is supervising the valve and creates a signal at the panel/annunciator that it is closed/closing.
 - This signal shall also be sent to the fire dept as per NBC Sentence 3.2.4.9.(5)
 - CAN/ULC-S1001 has specific testing for the integrations between fire alarm systems and fire signal receiving centers as well.

Thursday, October 20, 2022

Code Panel - You're Questions Answered!

Ryan Cross, Kresten Krogsgaard, Kelsey Longmoore

Questions from members are answered by a panel of experts. Grey areas and ambiguities abound in our line of work! This session is a great opportunity to get some clarity on some thorny issues.

Questions for 2022 Fall Conference Code Panel

Why is post and beam buildings allowed having a foundation comprised of a post in the ground at 4-feet deep when our frost levels are equal or more than 6 feet. We require other foundations to be below the frost line such as attached garages. Pre-engineered steel buildings have full depth foundations at a much higher cost than post and beam buildings. Even decks require pilings in certain instances that are often 12 inch diameter by 12 feet or more in depth.

Does a dwelling require an exit door that swings on its vertical axis or can it have a sliding door as the only point of egress?

9.10.5.1 States that back to back plugs need to be 'offset where necessary to maintain the integrity of the FS'. This is very vague.

A restaurant owner wants to re-route the duct from the pizza oven (at left in the picture below, currently improperly vented) into the properly vented hood at right, above the filters. I can't find anything in the NFPA 96 standard that specifically addresses this. Chapter 7 prohibits joining kitchen exhaust ducts to HVAC systems, which is not the case here, The Phil Ackland manual has no examples similar to this one either.

As I understand it, the key point are that ducts be 16 ga steel or 18 ga stainless steel, liquid tight, and accessible for regular cleaning.

The owner's aim is to gain compliance with the standard, as economically as possible.



Code Panel - Kelsey Longmoore, Kresten Krogsgaard, Ryan Cross and Chad Freeland

How high does a railing have to be on a workshop mezzanine which is higher than 8' above floor level and does this differ from a railing on an exterior balcony?

Are rented "stacked townhouses" required to be provided with barrier-free suites (greater of 1 to 5% as per The Building Code Regulations)?

Question 1- when doing a Plan Review on a new lake cottage what determines whether or not the building is seasonal? It seems to be more and more common that people are stating the home is 3-season and not complying to 9.36. Is it the heating system that determines if it's a 4 season?

Question 2- In 9.36, they have the required values of windows to meet requirements. If the home is built at the lake, where the front of the home is mostly windows, and have little R-value, are the windows considered in the calculation of heat loss as compared to a home without large windows? Do the walls, ceiling etc require more insulation to make up for the heat loss of the windows?

Question 3- Smoke alarms are required to be interconnected. Can wireless interconnected smoke alarms be considered in situations where it's difficult to provide hard wiring. ie renovating old houses where wiring may be difficult and electricians may not want to drill holes, fish wires where vermiculite may be disturbed.

α. Why is a separation between an arena A-3 and lobby A-2 allowed to be not rated when it is supposed to have a 1-hour FRR?

A. I have a Part 9 building that is used for storage garage (specifically this building can only occupy 2-3 vehicles). Can this building be classified as Group F Div 3? I know that typically people assume F2 due to A-3.1.2.1.(1) however if an engineer or architect is able to provide an alternative solution to comply with the definition of Low-Hazard Industrial then would that be acceptable? Are there municipalities/Building Officials that will not accept an alternative solution for the definition and why?

● B. Can ICF be used in non-combustible construction? In Subsection 9.10.14, 9.10.15, or 3.2.3.

Thursday, October 20, 2022

Plan Review 101

Braden Uleryk & Ryan Ewart, City of Regina

Plan reviews are a vital part of the permit process, but new building officials often struggle with the task. A great deal of know-how is needed for reading plans and evaluating them for code compliance. Braden and Ryan will provide a good overview of the basics!

'Rules of Reviewing' #1

Be comfortable with what you are approving.

Probably the most important which is why its first.

You are approving an application and stating this drawing meets code and I am allowing the construction of it.

So you need to understand what you are provided on the plans, and see if anything doesn't meet the specific code article or if everything looks good.

'Rules of Reviewing' #2

Read ALL notes for the first review. Skim the notes for every subsequent review.

It's like playing 'Find the differences' game.

As some designers can hide changes between reviews.

Some designers hide stuff in the notes, whether it's a catch all note, or they show one thing on the drawing itself, but say something else in the notes. Such as "Engineers seal covers structure only and does not include supporting foundation" or during the 3rd review, they move the location of the house on the site, add a cantilever, and change the layout of the second floor. Okay well now I need to recheck the glazing calculations, does the cantilever need a fire rating based on its distance to the property line, etc.

Read everything and do a comparison of the old vs the new to make sure you don't miss something.

'Rules of Reviewing' #3

If you are assuming something, condition it or get clarification.

Multiple sets of plans, conflicting engineering documents, tall walls, etc.

Clarity is key point here to document what you have done/ reviewed, and if not clear, get clarification from applicant.

'Rules of Reviewing' #4

Ask yourself, does something or should something be verified on site?

If it's unclear on the plans condition it & include [Inspector to verify on site] on the end of your condition.

Is it easily verifiable on site rather than on plans?

- It is putting the responsibility on the inspector, but if it makes more sense to have the inspector check the framing of a specific detail or if it says 'Framing to be



Braden Uleryk, Ryan Ewart and Neil Marsh

provide onsite' it's a reminder for the inspector to look out for it and if they have questions to call you as the reviewer to see if it makes sense.

- Or in some situations its useful for renovations where the applicant/owner is being uncooperative and doesn't want to allow the inspector in the building because they were caught doing work without a permit.

'Rules of Reviewing' #5

Can you create a 'Educational Condition'?

A simple correction or clarification can be replaced with a condition that states why or what type of product must be used in order to meet, or must be upgraded to _____.

- See Rule #1

Examples of an 'Educational Condition'

- As per 9.14.5.2 2015 NBC, sump pit must be minimum 750mm deep, not less than 0.25m² in area, and provided with a cover conforming to 9.14.5.2(2) 2015 NBC.
- Instead of: sump pit to meet Section 9.13?
- A Soil gas control system shall be installed that includes the rough-in for: A 100mm (4") diameter pipe installed through the floor and sticks out above the floor slab, is capped off, clearly labeled, and extends to/or near to the center of the floor slab for a future depressurization system to be installed as per 9.13.4.3.
- Instead of: Soil gas control to meet Section 9.14?
- I don't trust the contractors on site to understand the code or expect them to go looking to find an answer when they have a building to construct, so I provide them the answer I am expecting to see on site.
- Can you do this with everything? No, but it can be used to help you with 'soft enforcement' or slowly get builders used to building it into their schedule so that they aren't surprised when you finally call them on it and make them do it on site. - Example sump pit minimum diameter size is 22" not 18"

'Rules of Reviewing' #6

Use your judgment.

Does this meet the intent of the code/code article?

Re-read the section, go to the notes, read the user's guide, look up the intent statements to see how an article applies.

- The code is very grey at times, or calls for a reasonable resolution based on the intent of the article, the existing conditions of the building, the cost of meeting the code article.
- Read the code, check the appendix, user's guide, or read the intent statement.

Current Contact Information

Building Standards and Licensing Branch
Saskatchewan Ministry of Government
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Friday, October 21, 2022

Laura King:

NFPA 241, Fire Safety for Buildings under Construction

www.nfpa.org/13D

Laura King is NFPA's regional director for Canada. Laura was editor of *Fire Fighting in Canada* and *Canadian Firefighter* magazines for 10 years before moving to NFPA in 2017. She was a reporter and editor for more than 20 years for newspapers and magazines across Canada and the United States.

Laura has an honors degree from Carleton University in journalism, political science, and public administration. She is a certified fire- and life-safety educator and holds several other certifications in fire, leadership, and mental health. Laura is from Cape Breton, has lived in Halifax, Ottawa, Edmonton and the Greater Toronto Area, and is thrilled to travel again to all parts of Canada – especially Saskatchewan!

Laura's presentation revolved around NFPA 241 Standard for Safeguarding Construction, Alteration, and Demolition Operations.

Construction fires in Canada

Winnipeg, February 2022

- Under construction condo complex
- Four-storey building site, spread to adjacent building
- Construction site and parking garage / cars destroyed
- Damage to two neighbouring condo buildings
- From CBC story: Giselle Majersky, a senior who lives in one of the condo buildings, was on a Skype call with family when she heard someone yelling about the fire. "I opened the balcony...and this was a student, probably from Kildonan East [Collegiate], and she was running and alerting, yelling, 'Get out, get out. There is a huge fire. Get out now,'" Majersky said.
- "Buildings under construction are almost like lumber yards," he said Monday night. "They go up very, very quickly. There are no extinguishment options. They are open-air. When (firefighters) departed the station, they could see extensive fire and smoke."

Kingston, Ontario, December 2013

- Building under construction
- 22 charges laid by Ministry of Labour
- 10 charges against Jay Patry Enterprises
- 2 charges against Stelmach Property Management and 10 combined charges against three people.
- Pleaded guilty; fined \$60,000
- MOL found insufficient standpipes
- Jay Patry Enterprises Inc. pleaded guilty of failing as a constructor to ensure that measures in the Construction Projects Regulation were carried out and was fined \$60,000. Troy Joseph Stelmach of Stelmach Property Management Inc., was fined \$2,500 on the same charge. Company owners Jason and Nathan Patry pleaded guilty for failing to furnish all necessary means in their power to facilitate an investigation by an inspector and were fined \$7,500 and \$4,000 respectively. The Fire Marshal was not able to determine the specific cause or origin of the fire. The Ministry of Labour found insufficient standpipe — pipes required to



Myron Stenka and Laura King

mitigate potential fire damage — had been installed at the project site.

- Failure to ensure an adequate means of egress was provided from a work area to permit the evacuation of workers during an emergency.
- Failure to take reasonable precautions to protect the health and safety of workers, including ensuring a minimum of two exits on each level of a project and/or ensuring the maximum travel distance to an exit did not exceed 200 feet.

Bradford, Ontario, April 9, 2021

- Hotel under construction
- Six-storey wood building
- "Other than concrete stairwells, the entire construction was made of wood, with no safety systems installed yet. The structure is a total loss."

NFPA 241

Construction fires

- Is this OK?
- Is it a wood problem?
- 2020 National Building Code
 - Up to 12 storey encapsulated
- So what is the problem?
- Five of these fires—the two in Massachusetts, and the ones in Maryland, North Carolina, and Kansas—a common thread was the buildings' wood-frame construction, which relies on the use of structural wood members like two-by-fours coupled with "lightweight" or "engineered" wood components produced with glues and resins.
 - Evidence suggests wood-frame construction, especially for multifamily residential buildings, is flourishing. Data also suggests that percentage of 4-6 story wood framed multi-residential buildings is growing from 18% (2006) to 37% (2016). Lightweight wood has been proven to burn, and fail, faster than traditional dimensional lumber, which is why it has been a safety concern to some. But non-wood framed building burn

Continued on next page

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during construction too. This may be considered a lot of wood that may be allowed by code. But the codes consider all the provisions holistically. When a building is under construction, it's the state of being under construction itself that puts it at the greatest risk for fire, rather than what it's made of. In other words, the risk of a fire starting in a steel building under construction is equal to the risk of a fire starting in a wood-frame building under construction.

Key findings from 2016 to 2020

- U.S. fire departments responded to an estimated average of 4,300 fires in structures under construction per year
- These fires caused an average of five civilian deaths and 62 civilian injuries per year

- US \$376 million in direct property damage annually
- Estimated number of fires in structures under construction has increased since 2014 after declining 2008-2010
- Three of every four fires in structures under construction involved residential properties.
- *Cooking equipment is the leading cause of fires on construction sites; these fires tend to be minor.
- Fires that were intentionally set caused one in 10 fires, but almost half (47 per cent) of direct property damage.
- While large fires typically make the news, many of the fires in structures under construction were much smaller. As shown in the report with supporting tables, approximately one-half of these fires were confined fires. The presence of workers at construction sites who can detect and extinguish fires before they have an opportunity to spread may explain why many of these fires were relatively small.

Figure 2. Fires in Structures under Construction by Leading Cause 2016–2020 Annual Averages.

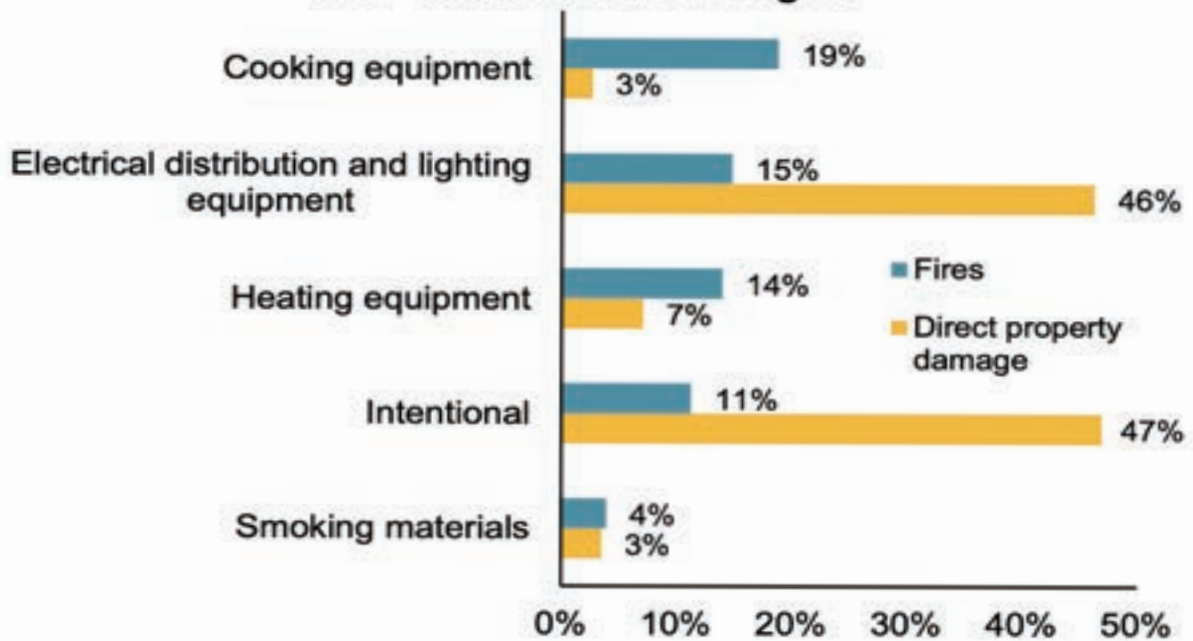


Table A. Fires in Structures under Construction by Property Use 2016–2020 Annual Averages

Property Use	Fires	Civilian Injuries	Direct Property Damage
Residential	76%	77%	77%
Mercantile or business	6%	5%	3%
Outside or special property	5%	3%	13%
Storage	4%	2%	1%
Assembly	3%	3%	3%
Health care, detention, correction	2%	7%	2%
Educational	2%	1%	0%

Friday, October 21, 2022

Building Standards Updates and Selected Topics

Marvin Meickel, Gov. of Sask, Building and Technical Standards Branch

Marvin Meickel is Saskatchewan's Chief Codes Administrator and head of the Building and Technical Standards Branch, Saskatchewan Ministry of Government Relations. Marvin is well known and widely respected for his knowledge and dedication to the building officials' vocation. His news-and-updates session is a much-looked-for highlight of every SBOA conference.

Model Building Bylaw

The Model Building Bylaw is in force January 1, 2022. There is a grace period of seven years for local authorities who had a valid building bylaw in place as of January 1, 2022.

Shorter grace period for local authorities who did not have a valid building bylaw in place on January 1, 2022:

Cities –December 31, 2022;

Municipalities –December 31, 2023;

Global Transportation Hub –December 31, 2023;

Provincial Parks –December 31, 2023;

Regional Parks –December 31, 2024; and

Provincial Capital Commission –December 31, 2024.

Local Authority Annual Reporting

We need to know if a local authority has a licensed building official (LBO) and identify the credentials of the person.

Reporting of service provider information required under the CC Act.

Names and license numbers of building officials to be provided within 60 days of the fiscal year end (December 31).

Municipalities are already providing names of their appointed building officials.

LBO Information will be reviewed and may result in follow-up.

Legislative Framework Training (LFT)

LFT updated to the CC Act, *The Building Code Regulations* and *The Energy Code Regulations* for 2022.

LFT sessions recently completed in Regina with Saskatoon to follow.

Positive response from building officials and others. LFT will be updated to reflect the 2020 NBC in 2023.

LFT continues to be a core hour requirement for new license holders and for renewals during a five-year license cycle.

LFT will be recorded and uploaded to website.

Carbon Monoxide (CO) and Smoke Alarms

Ministry of Government Relations

BTS was instructed to proceed with regulations involving both CO and smoke alarms.

BTS consulted with 35 stakeholder groups.

BTS proposed a passive enforcement mechanism.

BTS Amended *The Uniform Building and Accessibility Standards Regulations*.

CO and smoke alarm provisions carried into (new) *The Building Code Regulations*.

CO and smoke alarm provisions comply with the National Building Code of Canada 2015 (in part).

Residences include any urban or rural building where people are expected to find regular overnight sleeping accommodation.

This would include: houses (detached houses, duplexes,

townhouses, etc.) condominiums and apartments hotels, motels, dormitories, etc.

Large buildings will have fire alarm system and other early detection devices.

Alternative Family Care Homes (AFCH) are exempt from this regulatory amendment due to additional safety measures determined necessary to qualify for license approval as an AFCH.

Residences that do not have CO or smoke alarms, are required to install new ten-year battery-operated devices to comply with the current NBC 2015. **One CO alarm is required on each floor where there are bedrooms, installed inside each bedroom or in the hallway within five meters of the bedroom doors.**

One smoke alarm is required in each bedroom and one in the hallway adjacent to the bedroom doors. Also, a smoke alarm is required on other floor levels including the basement.

Owners should check compliance with NBC 2015 (listed above) and install additional ten-year battery-operated devices as necessary.

Owners should check the end-of-life date stamped on their devices and replace expired devices as necessary.

2020 National Codes Publication and Adoption

Codes Canada delayed publishing the 2020 codes.

Saskatchewan proposes to adopt NBC, NECB and NPC on January 1, 2024.

Saskatchewan amendments to include NBC, NECB and NPC

Timing of adoption will satisfy Construction Code Reconciliation Agreement.

SPSA will be responsible for the NFC adoption and regulations proposed for January 1, 2024.

BTS has started the review of over 400 Code updates in the 2020 NBC.

Consultations on regulatory amendments to commence early 2023.

Provide live Code change presentations in the fall of 2023 in Regina and Saskatoon.

Attendance at code change presentations a mandatory requirement for license renewal.

Code change presentations will be recorded and uploaded to website.

Building Official Licensing

February 2022 is the end of the trial for the Saskatchewan Building Officials Association (SBOA) Certification Examinations.

New licensees are provided three options to satisfy education requirements: Provincial Challenge Examinations (1995 NBC);

Building Code Training for Canadians (BCTC) Level 1 (2010 NBC); and SBOA Certification Examinations (2015 NBC).

Existing building officials (BO) provided with two options:

Provincial Challenge Examinations (1995 NBC); and

SBOA Certification Exams (2015 NBC).

Provincial Challenge Examinations to be phased out over a period of three years.

License renewal has been a challenge for BOs.

Continued on next page



Virginia Shepley and Ryan Cross

Friday, October 21, 2022

Occupant Load Calculations

Ryan Cross - Saskatoon Fire Department

Ryan's 20 years in the fire service have been busy! He has worked in the Industrial Fire Service, Aircraft Rescue Fire Fighting Service and Municipal Fire Service. He is a Certified Fire Inspector (Level 2) since 2010, and has worked as a Fire Inspector for the past 12 years. He has been a Certified Fire Investigator since 2018 and has worked as a Fire Investigator for the past 4 years. Currently employed by the Saskatoon Fire Department as a Fire Inspector and a Fire Investigator, and also a Captain, Paid On-Call, with the Martensville Fire Department since 2006. Ryan is currently secretary of the Saskatchewan Association of Fire Chiefs – Inspector's Division He is also enrolled in the SBOA Building Officials Training Program with Southeast College (BCTC). This session will contrast the varying occupancy load calculations using the NBC Design Occupant Load and an NFC Operational Occupant Load. This will also show what fire officials are looking for when determining an Occupant Load in accordance with NFC, which can vary significantly from the NBC-based design occupant load. This will include a hands-on NFC Occupancy Load Calculation for the participants.

Ryan explained that doing occupant loads on existing buildings in use is much different than calculations of buildings in the National Building Code according to design. Each event can change the occupant load especially for net floor space and travel distance. Exiting will always be the same in each event unless an exit is blocked. The three main calculations referencing occupant loads of existing buildings is net floor space, exiting and travel distance with the most stringent number being used.

Building Standards Updates

Continued from previous page

One hundred hours is the requirement over a five-year license cycle.

56 hours of discretionary training and 44 hours of mandatory training is also required.

2020 considered a non-credit year.

LFT allowed to be used for one renewal after July 1, 2019.

The Building Code Regulations allows for an extension to the license period to a maximum of 24 months.

Recognized training including BTS educational, SBOA Conferences and educational, CWC online, NFPA training, Kilo Lima, personal development

Work In Progress

AFCH Updated Guide (IP)

Additional Fire Safety Measures Online Training (IP)

Day Care Advisory (IP)

Farm Building Advisory Update (IP)

LFT online with Thinkific (IP) Craft-Distilleries Guide (TBD)

User's Guide (TBD)

Get back into a routine of spring and fall live presentations.

Work Completed

Explanatory Notes to the CC Act and Regulations

Building Bylaw and Enforcement Guide

CO and Smoke Advisories

Review the Saskatchewan Construction Standards Appeal Board (Appeal Board) members and fill board vacancies

Publication of Appeal Board decisions

Update LFT and present LFT live to stakeholders



Jody Holzmitter, BCTC recipient Joshua Nitz and Cynthia Starchuk

**Please note the SBOA mailing address
has changed:
PO Box 32067
Regina Saskatchewan
S4N 7L2**

**And we have a new email
execdirector@sboa.sk.ca
Saskatchewan Building Officials Association**

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SBOA
Spring Conference
March 29 - 31, 2023
Swift Current Casino

The Home Inn & Suites – 306-778-7788
Holiday Inn Express & Suites – 306-773-8288

Book rooms early as a block of rooms is only held for a period of time.



2023 WINTER TRAINING WEEK

January 23-27, 2023—Class are daily from 8:30am—4:30pm
Saskatoon—Cosmo Civic Center, 3130 Laurier Drive, Saskatoon, SK
Regina—Days Inn by Wyndham Regina Airport West,
4899 Harbour Landing Drive, Regina, SK

The SBOA is proud to present the Winter Training Week

It is our goal to continue to provide all code practitioners with formal building code training and professional development opportunities. “Training Week” will provide an excellent informative series of training sessions to help continue to develop, enhance, and advance your education, knowledge, and skills in building code application!

Who Should Attend?

- Building & Fire Code Officials
- Architects, Building Design Engineers,
- Interior Designers, Building Design Consultants
- Installers, Contractors
- Insurance Representatives

COURSE CALENDAR

Day:	Course Stream 1:	Course Stream 2:	Course Stream 3:
Monday 23-Jan	ACBOA National Building Code Training Part 3 “Large Buildings”	ACBOA National Building Code Training Series Part 9 “Small Buildings”	ACBOA National Building Code Training NBC 9.36
Tuesday 24-Jan			ACBOA National Building Code Training NECB
Wednesday 25-Jan			
Thursday 26-Jan			
Friday 27-Jan			

BUILDING OFFICIAL WINTER TRAINING WEEK

COURSE DESCRIPTIONS

Saskatoon—Part 9—Small Buildings (5 Days)

This course has been designed to enhance the knowledge of existing code practitioners and those practitioners who wish to improve their competence in interpreting and implementing the principles of the 2015 National Building Code of Canada (NBC) with respect to small buildings (Division B, Part 9). It is intended to help the participant understand the requirements of the NBC that apply to all Small Buildings defined in the NBC as:

- | | |
|--|--|
| <ol style="list-style-type: none">1) Three or fewer storeys in building height2) Having a building area not exceeding 600m²3) Used for major occupancies classified as Group C—residential, Group-D—business and personal services, Group E—mercantile, Group F-2—medium hazard industrial and Group F-3—low hazard industrial occupancies. | <p>Some areas covered by this course include:</p> <ul style="list-style-type: none">- Fire Protection- Means of Egress- Special Structures and Basics of Structural Requirements- Design of Area and Space- Stairs, Ramps, Handrails and Guards- Energy Efficiency- Others |
|--|--|

Saskatoon—Part 3—Large Buildings (5 Days)

This course has been designed to enhance the knowledge of existing Building Code practitioners and those practitioners who wish to improve their competence in interpreting and implementing the principles of the 2015 National Building Code of Canada (NBC) with respect to large buildings (Division B, Part 3). It is intended to help the participant understand the requirements of the NBC that apply to all Large Buildings, however does not cover the more complex buildings dealt with in “ACBOA—Complex Buildings”.

- Construction Types, Occupancy, Fire-Resistance and Occupant Loads
- Building Fire Safety
- Safety within Floor Areas
- Exits
- Vertical Transportation
- Health Requirements
- Barrier-Free Design
- Tents and Air-Supported Structures,
- Self-Service Storage Buildings
- Alternative Solutions, Renovations & Relocated Buildings
- Environmental Separation
- Structural Design, HVAC, Plumbing
- Sample Examination Questions
- Post Course Study Plan

Regina—NBC Section 9.36– Energy Efficiency (2 Days)

This course pertains to Section 9.36 Energy Efficiency of the National Building Code (NBC) and is intended to educate participants on how to interpret and demonstrate compliance with this section of the Code. This course has been designed to enhance the knowledge of those who wish to improve their competence in interpreting and implementing the principles of Section 9.36 of the National Building Code. This section is focused on improving the energy efficiency of houses and small buildings.

Regina—National Energy Code of Canada—NECB (2 Days)

This course pertains to the National Energy Code of Canada 2017 (NECB) and is intended to educate participants on how to interpret and demonstrate compliance with this Code. This course has been designed to enhance the knowledge of building officials (as well as designers, contractors, and other individuals) who wish to improve their competence in interpreting and implementing the principles of the National Energy Code of Canada for Buildings (NECB)..

WINTER TRAINING WEEK

COURSE REGISTRATION

Check box for each individual course that you are registering for below:
Course fees shown are for SBOA Members; non-member fees are an additional \$30 per day of training.

REGISTRATION FEE

- \$600 Part 3—"Large Buildings" (5 Days) \$240 NBC 9.36 (2 Days)
- \$600 Part 9—"Small Buildings" (5 Days) \$240 NECB (2 Days)

REGISTRATION SBOA, Box 32067, Regina, SK S4N 7L2

Name: _____ Company: _____

Phone: _____ Fax: _____ Email: _____

SBOA Course Fees

\$ _____

Payment Type

- Cheque enclosed
- Cheque by mail
- Send me invoice

2 Ways To Register...

1. Print, fill out, scan, and email this form to execdirector@sboa.sk.ca; mail cheque to the SBOA mailing address .
2. Print, fill out, and mail along with cheque to the SBOA mailing address noted above.