Hosted by Ken Kunka

- August 26 , 2021

BOABC INFORMATION & STUDY SESSION FIRE PROTECTION 9.10 FIRE BLOCKING – STOPPING - DAMPERS – PART 01

Welcome - Agenda

In The Know

- What's New
- Recent Interpretations – Fire Block/Stop/Damper

Fire Protection

- General – Concealed spaces
- How Fire Spreads
- Fire Blocking

Feedback and Future Sessions

- Member Question

AGENDA

PUT IT IN THE CHAT!
Comments and Questions

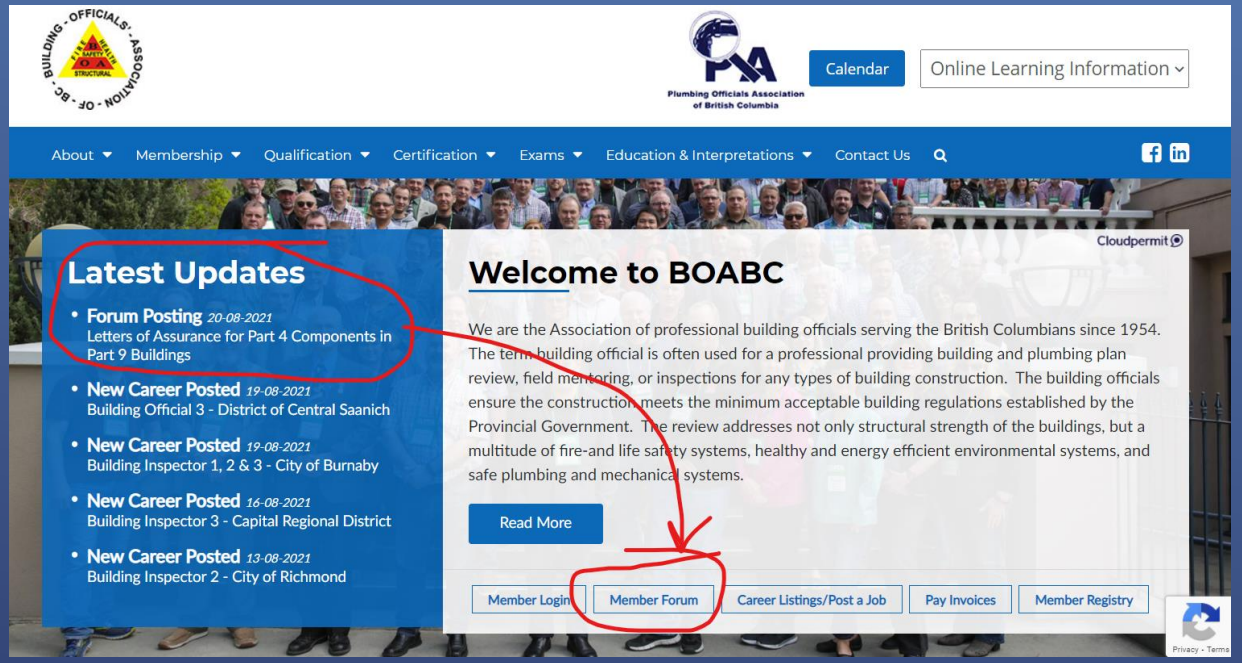
Links and Video test

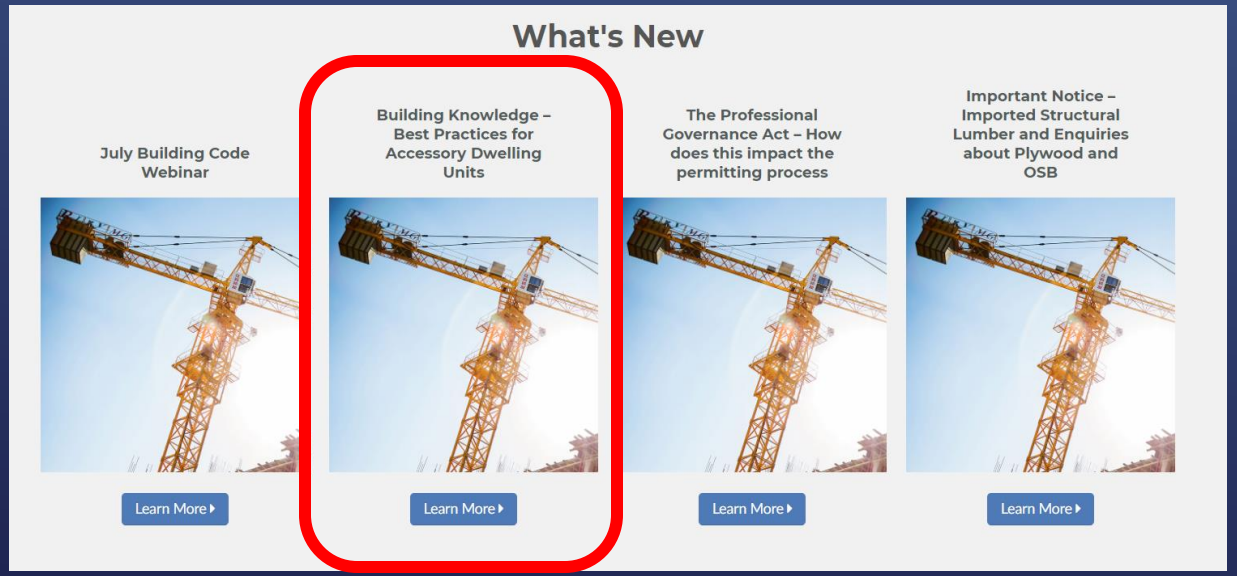
PURPOSE

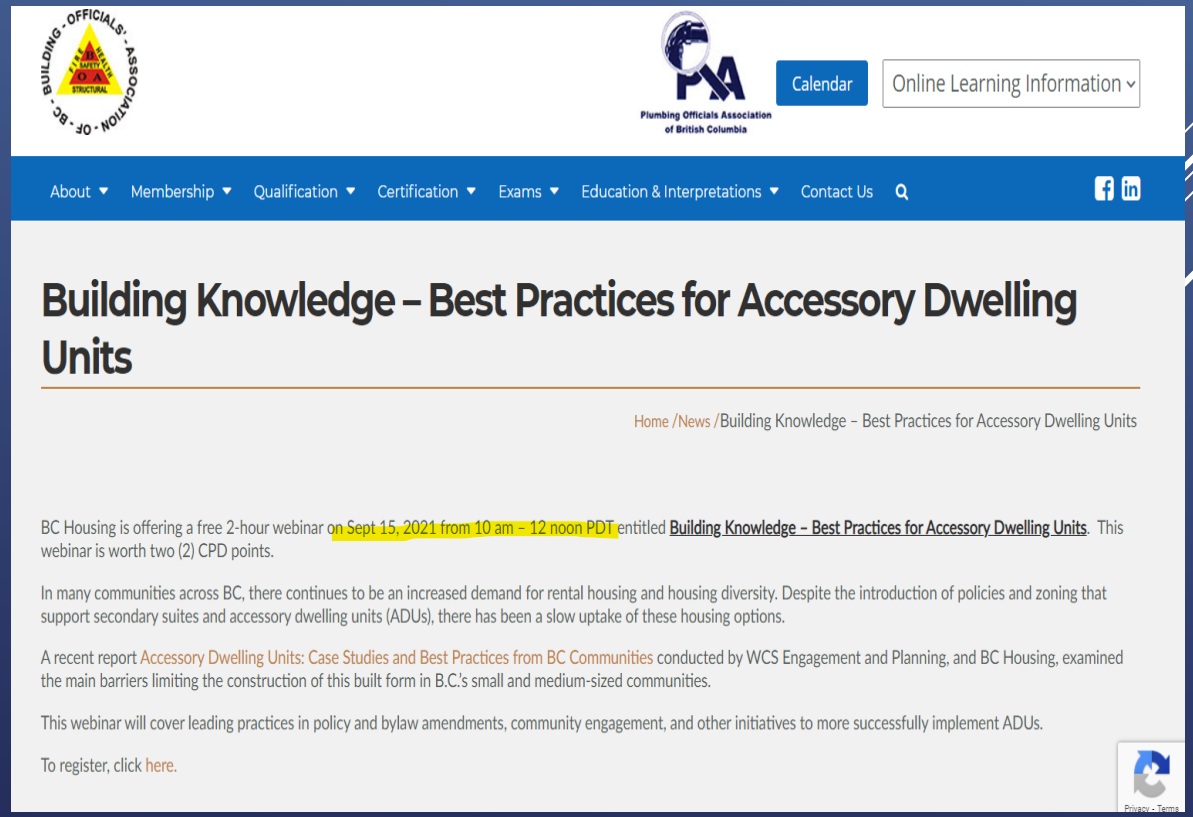
These sessions are intended to:	- generate dialogue amongst members - be a source of advice, feedback and options - support members in their work - provide professional development focus on your questions and feedback
These sessions are not:	- the only means for dialogue amongst members - formal education and training - exam review

In The Know

- Member Forum
  ***Part 9 Engineering**
- What's New

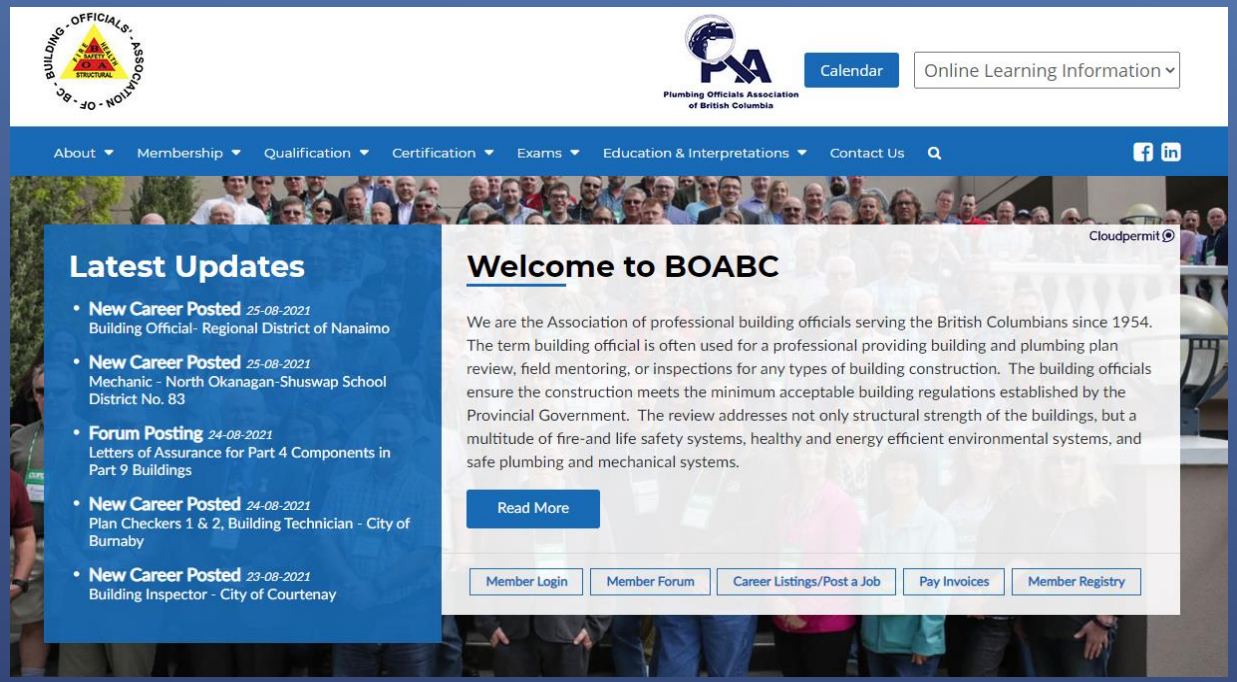


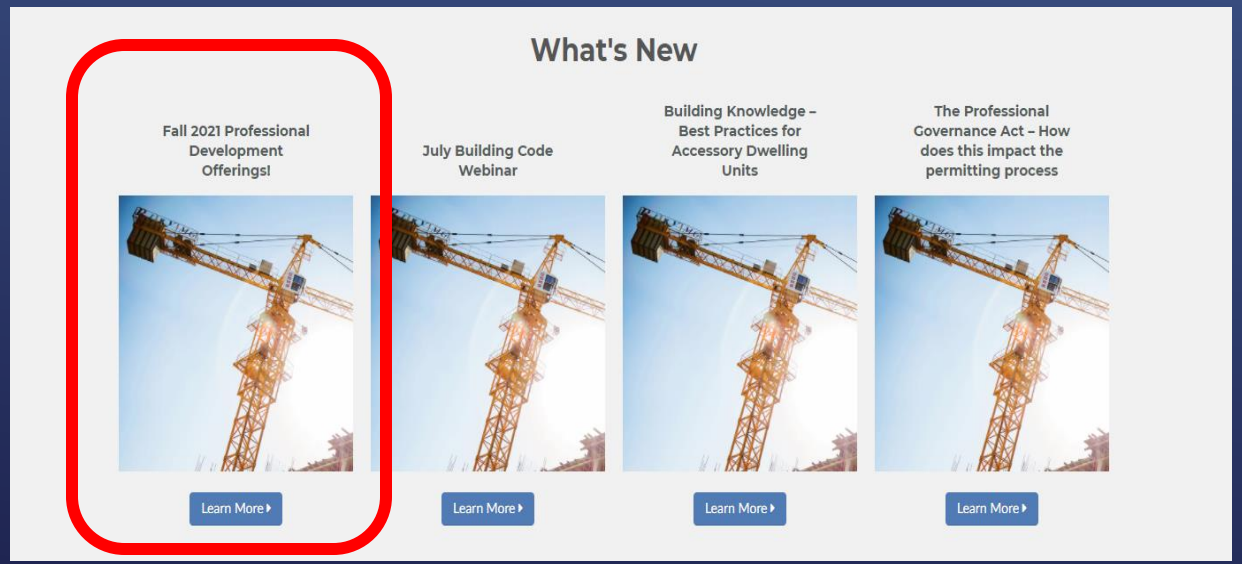


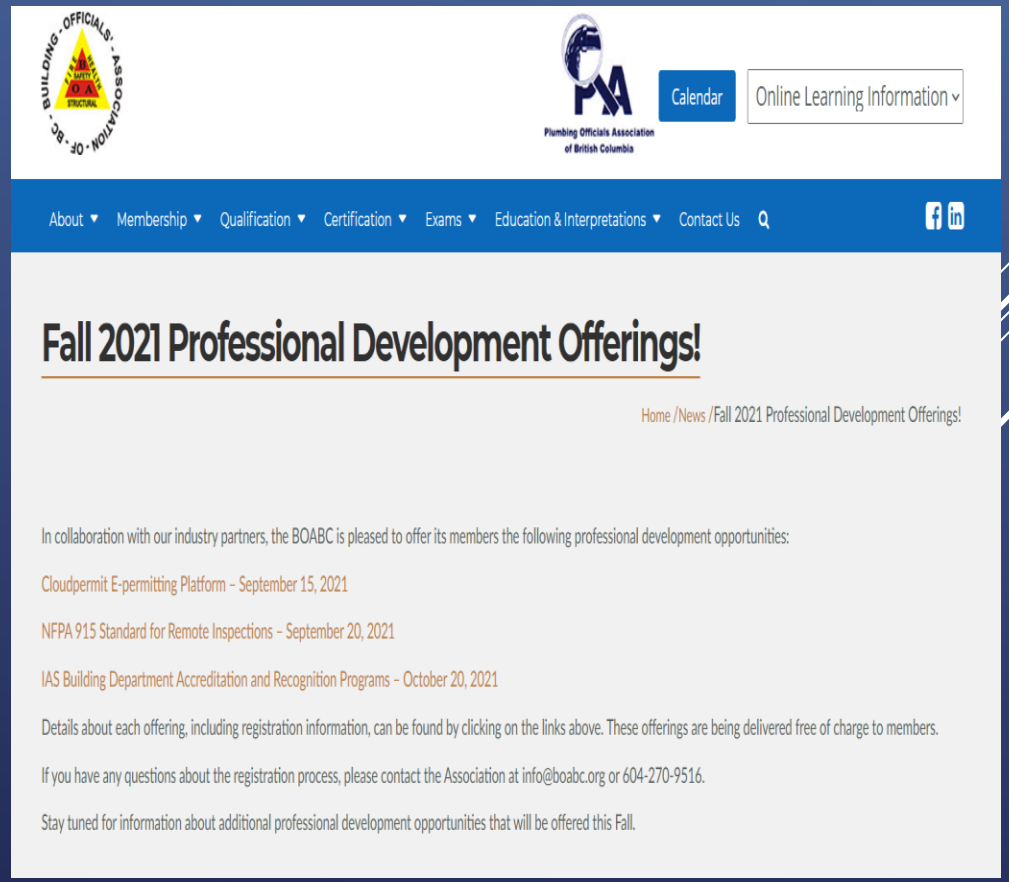


In The Know

- Professional Development Offerings
- What's New

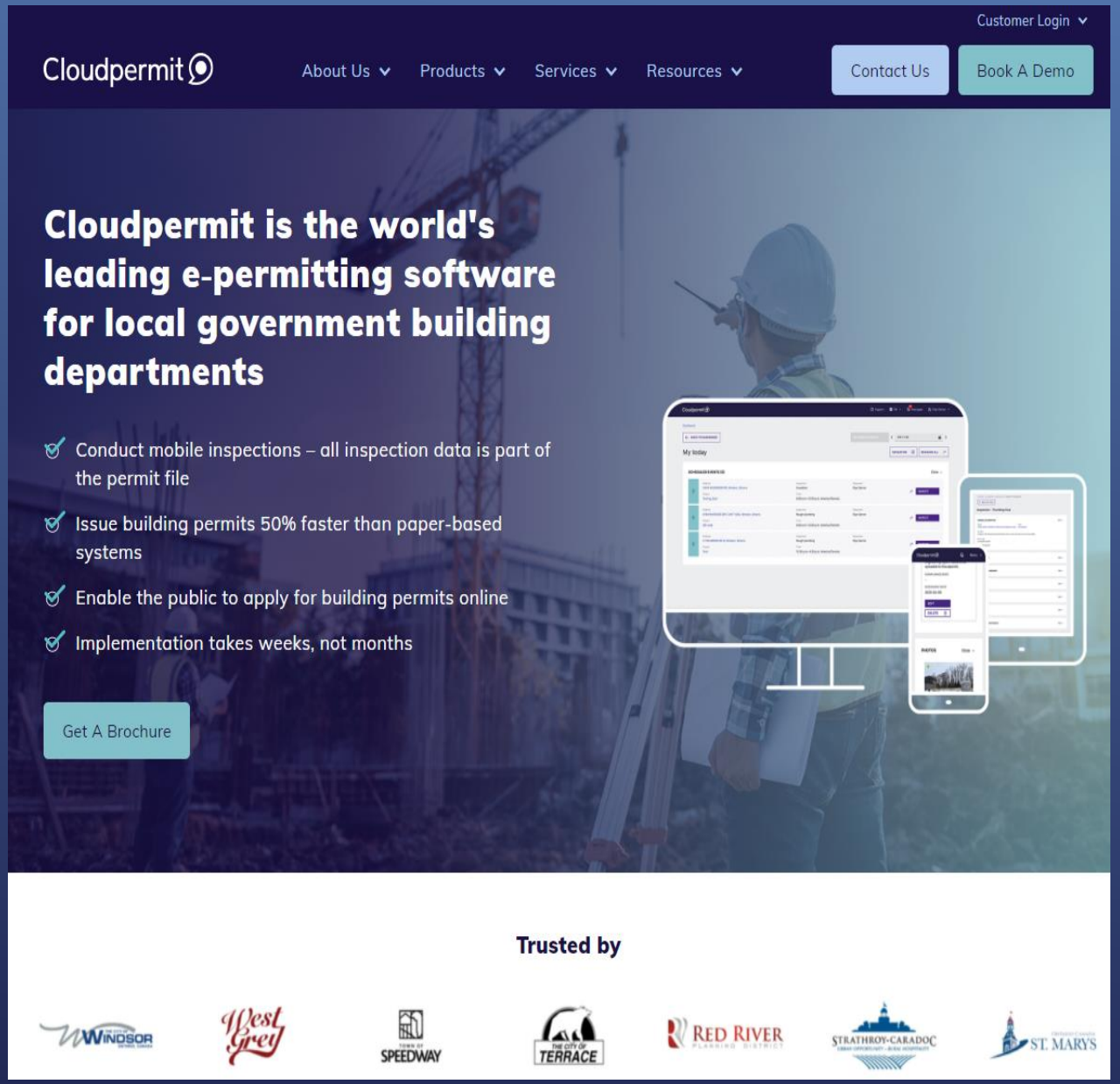


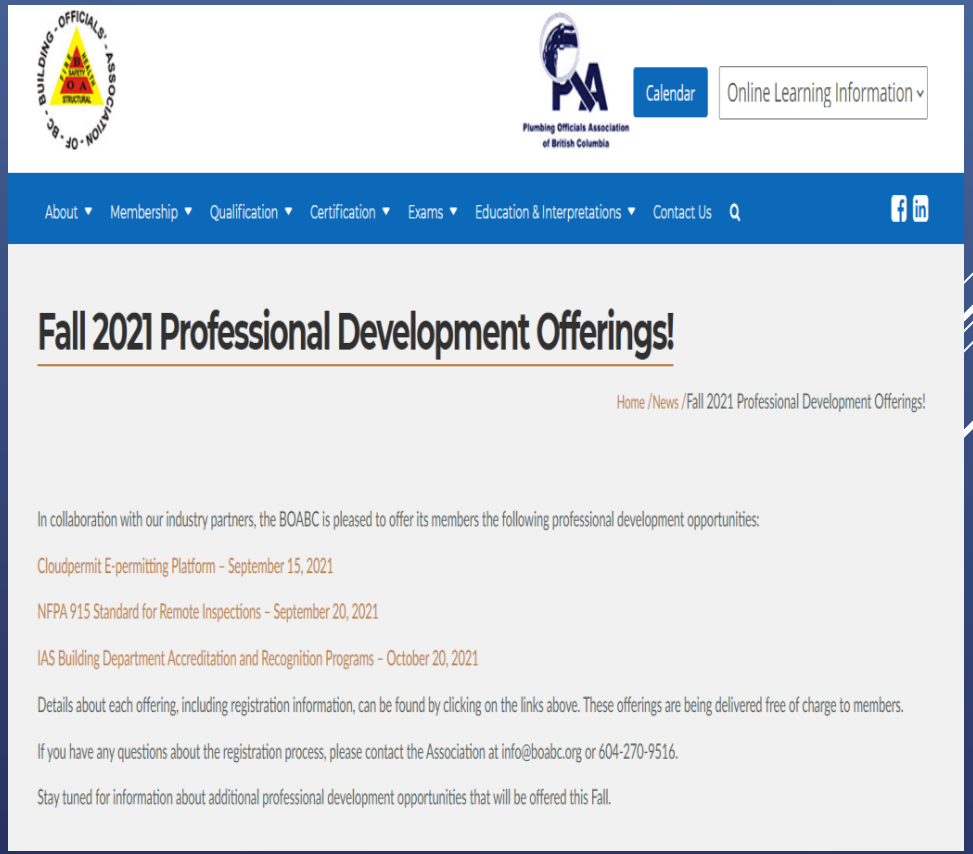


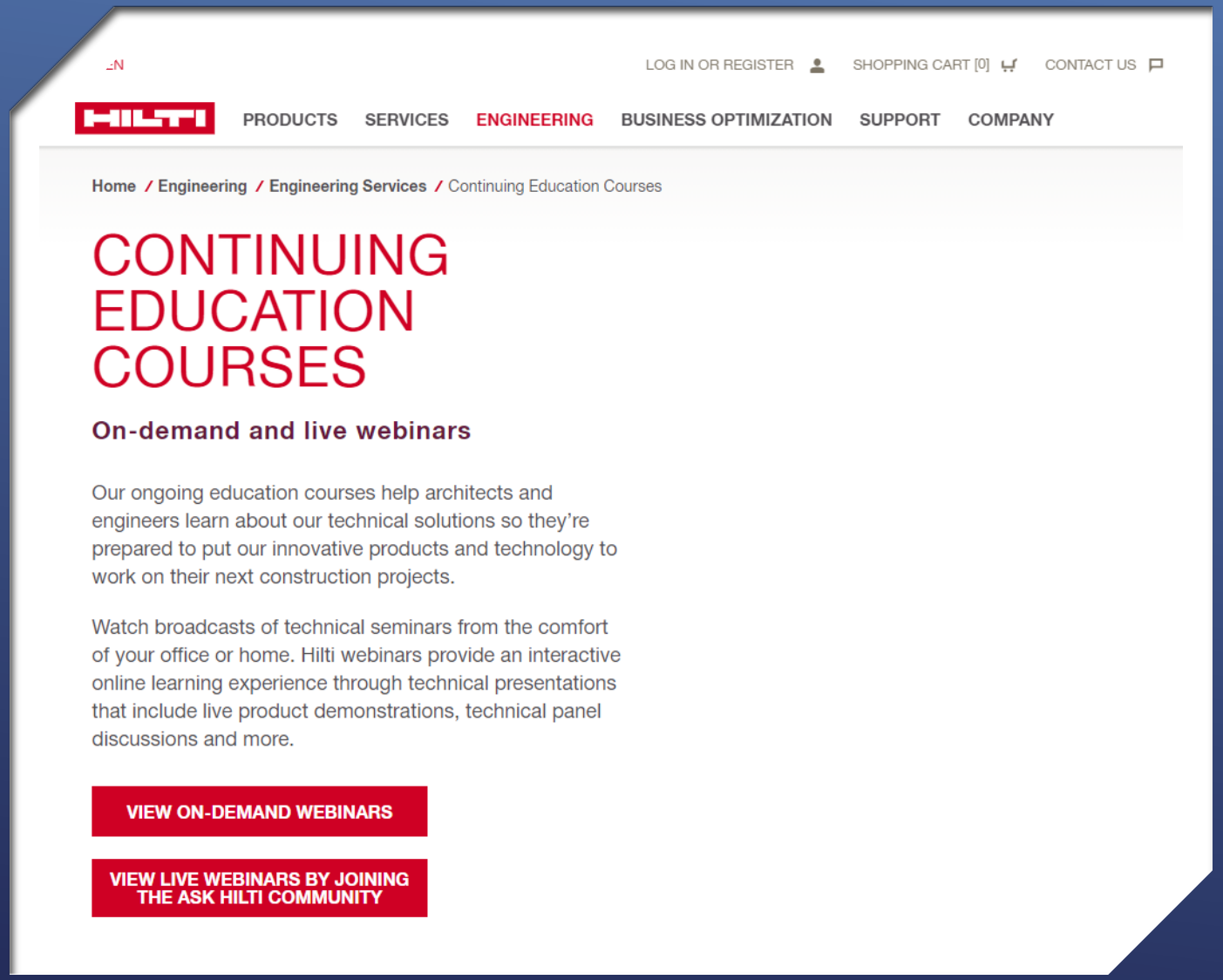


Upcoming

Cloud Permit September 15th.







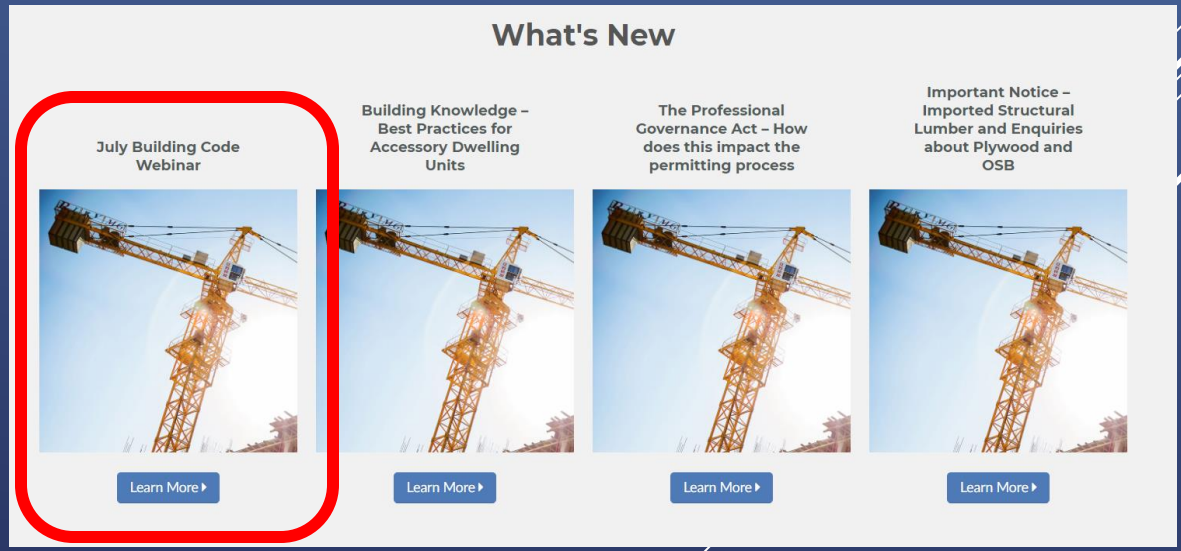
Upcoming

FIRESTOPPING WEBINAR BY HILTI

2 to 3 hours fall Webinar date to be announced stay tuned. **www.boabc.org**

In The Know

- July 29 – Spatial Requirements Session saved online.



Lake Country Spatial Guide

In The Know

FIRE SEPARATIONS

Calendar | Online Learning Information

About | Membership | Qualification | Certification | Exams | Education & Interpretations | Contact Us

Available BOABC Educational Webinars

If you are claiming these webinars under the 2021 CPD cycle, please take a screenshot of this page and initial beside the webinar that you watched. You can then save the screenshot to upload as proof when entering your CPD points.

CATEGORY	DESCRIPTION	RECORDED AT	CPD POINTS	LINK TO RECORDING
General	"The Human Factor" – the Essence & Importance of the "Soft Skills" of Business in Leadership/Management/HR/Legal/Operations – Rewerx	2019 Spring Conference	1.5	Click here to view
General	New Homes and the Homeowner Protection Act: Partnerships that Enhance Consumer Protection – BC Housing	2019 Spring Conference	1.5	Click here to view
General	Canadian Constructions Material Centre (CCMC)	2019 Spring Conference	1.5	Click here to view
General	Liability Pitfalls of Building Regulation – MIABC	2019 Spring Conference	1.5	Click here to view
General	Opening Ceremonies and Keynote Address – Will Johnston – CBO – City of Toronto	2019 Spring Conference	1.5	Click here to view
Building	What's New – Changes to the British Columbia Building Code 2018 – BSSB	2019 Fall Conference	1.5	Click here to view

WHAT'S NEW

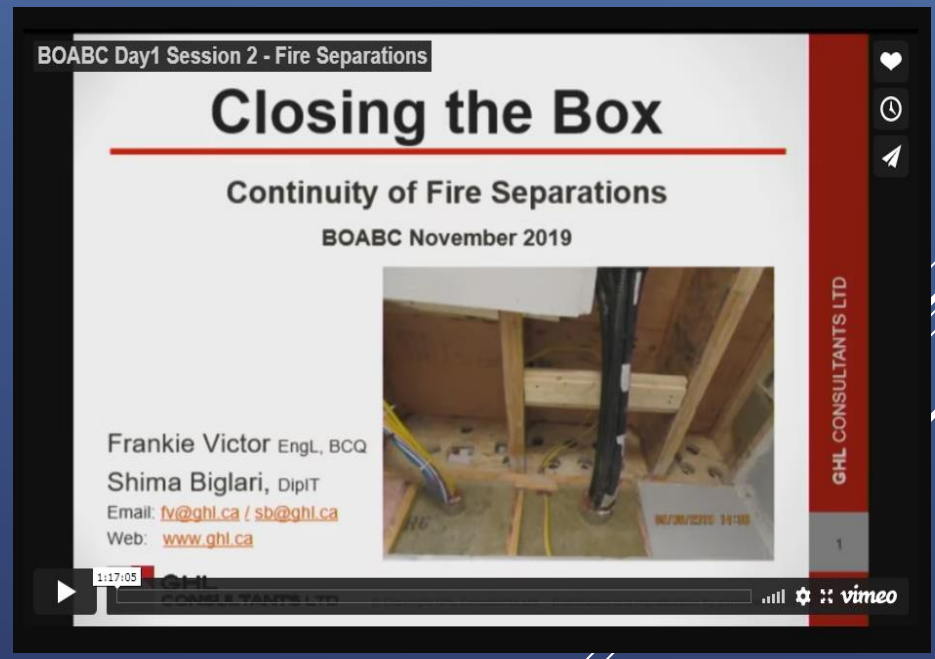
08.20.2021 July Building Code Webinar
The BOABC held a second Building Code Webinar on July 29, 2021. Please click here...

08.11.2021 Building Knowledge – Best Practices for Accessory Dwelling Units
BC Housing is offering a free 2-hour webinar on Sept 15, 2021 from 10 am...

07.22.2021 The Professional Governance Act – How does this impact the permitting process
On April 29, 2021, Engineers and Geoscientists BC distributed information to municipalities and regional districts...

07.9.2021 Important Notice – Imported Structural Lumber and Enquiries about Plywood and OSB
To: Canadian Building Associations and Officials, CLSAB Accredited Agencies and CLSAB Staff From: Chuck Dentelbeck,...

07.2.2021 BOABC Summer 2021



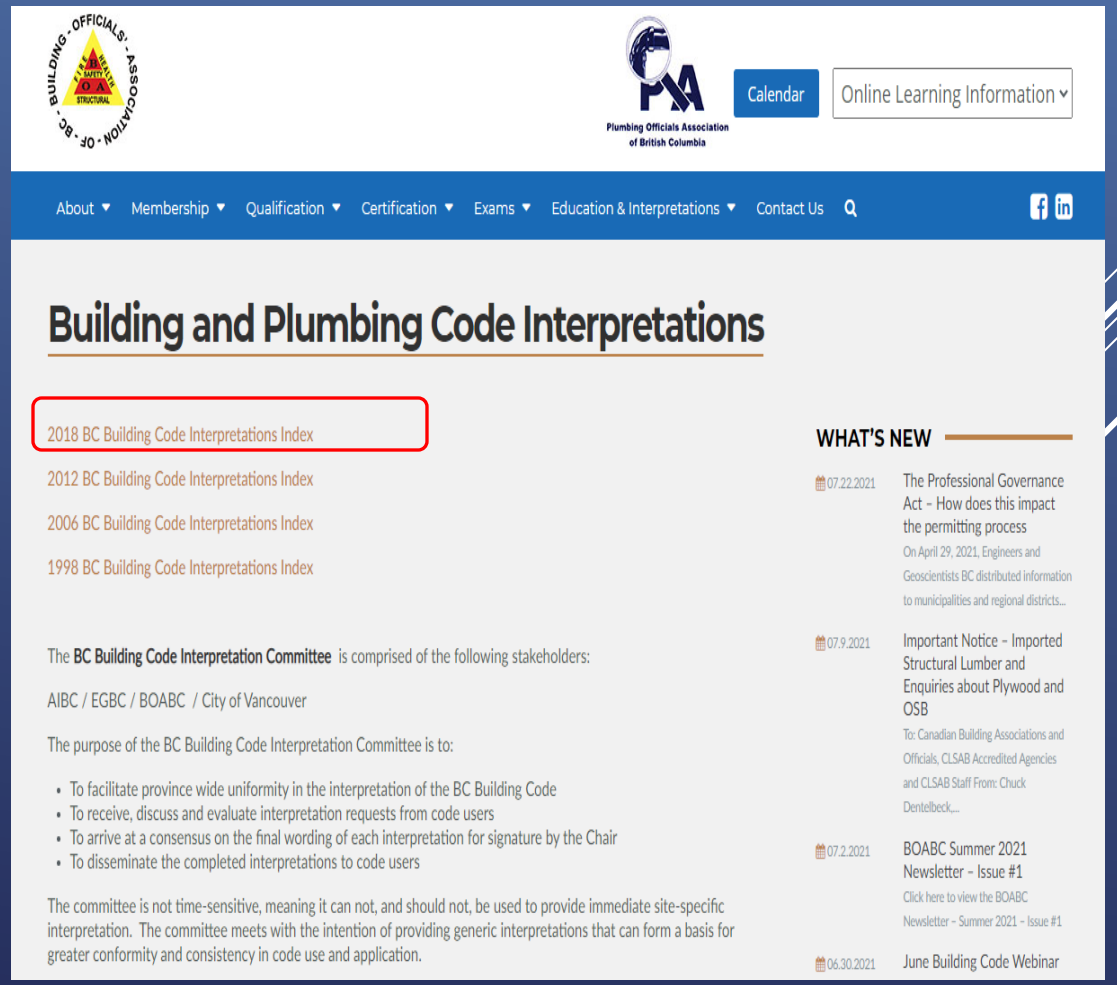
Building	Fire Separations – Frankie Victor (GHL Consultants)	2019 Fall Conference	1.5	Click here to view	

In The Know

Recent Interpretations

2018 BCBC

- 18-0007 - Fireblocking Within Rainscreen
- 18-0019 - Motorized Smoke Dampers in High Rise Building
- 18-0021 - Firestopping at Noncombustible Outlet Boxes
- 18-0052 - Activation of Smoke Dampers
- 18-0055 - Firestopping vs Blocking in Floor/Wall Intersections in Conventional Wood Framing
- 18-0058 - Fire block in SFD attic over 20m
- 18-0067 - Fire Separation or Fire Rating of Roof over Elevator Hoistway
- 18-0093 - Firestopping of Outlet Boxes
- 18-0099 - Fire Blocking in a Lowered Ceiling

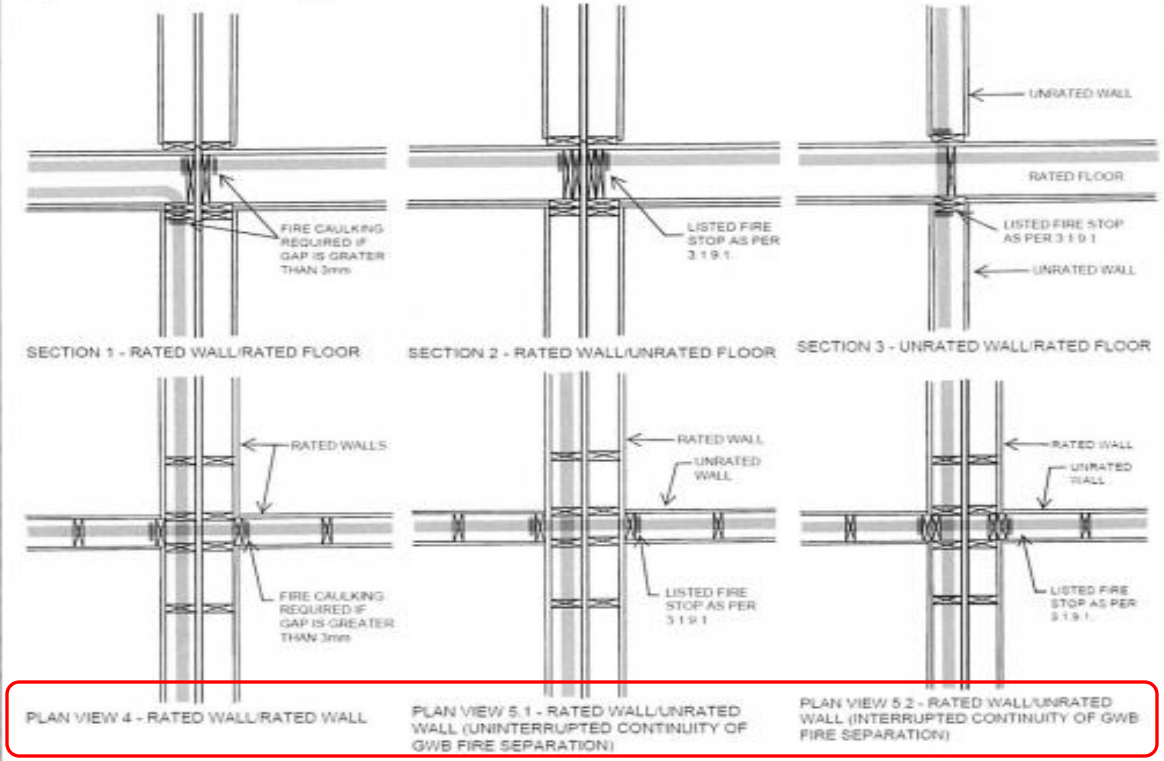


BC BUILDING CODE INTERPRETATION COMMITTEE
A joint committee with members representing
AIBC, EGBC, BOABC

File No: 18-0055 **INTERPRETATION** **Page 3 of 3**

5.2.a. Doubled fire blocking 2x lumber in non-rated wall and multilayer stud pack in fire rated fire separation wall provide adequate char protection and fire blocking for this junction.

5.2.b. Services that penetrate only fire blocking within rated wall do not need fire stop. The services that travel along the non-rated wall and cross a fire rated fire separation wall need to receive fire stop system listed for the rating of the fire rated wall.



SECTION 1 - RATED WALL/RATED FLOOR | SECTION 2 - RATED WALL/UNRATED FLOOR | SECTION 3 - UNRATED WALL/RATED FLOOR

PLAN VIEW 4 - RATED WALL/RATED WALL | PLAN VIEW 5.1 - RATED WALL/UNRATED WALL (UNINTERRUPTED CONTINUITY OF GWB FIRE SEPARATION) | PLAN VIEW 5.2 - RATED WALL/UNRATED WALL (INTERRUPTED CONTINUITY OF GWB FIRE SEPARATION)

Patrick Shek, P.Eng., CP, FEC, Committee Chair

The views expressed are the consensus of the joint committee with members representing AIBC, EGBC and BOABC, which form the BC Building Code Interpretation Committee. The Building and Safety Standards Branch, Province of BC and the City of Vancouver participate in the committee's proceedings with respect to interpretations of the BC Building Code. The purpose of the committee is to encourage uniform province wide interpretation of the BC Building Code. These views should not be considered as the official interpretation of legislated requirements based on the BC Building Code, as final responsibility for an interpretation rests with the local *Authority Having Jurisdiction*. The views of the joint committee should not be construed as legal advice.

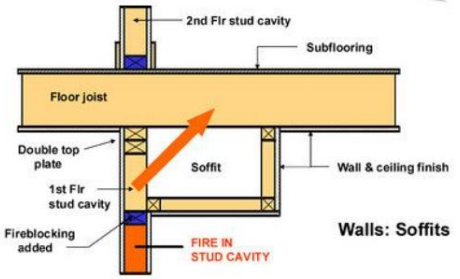
2020-11-16

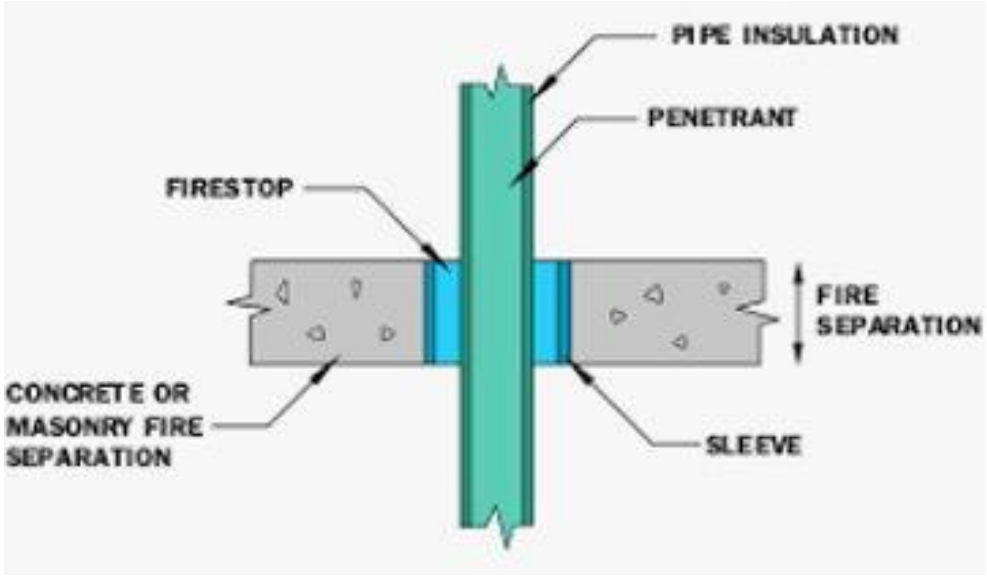
In The Know

18-0055 - RATED AND UNRATED ASSEMBLES

PLEASE REVIEW FOR THE SEPTEMBER SESSION ON FIRE STOPPING

FIRE BLOCKING, FIRE STOPPING, FIRE/SMOKE DAMPERS. PART 1





Introduction

The Fire Protection section of the BCBC for all buildings including Houses is founded on principles intended to establish provisions that provide a reasonable level of life safety and property protection to occupants of premises and safety to fire fighters and emergency responders engaged in emergency operations.

TODAY'S SESSION WILL REVOLVE AROUND SIMPLE PART 9 BUILDINGS – 9.10 & SPECIFICALLY 9.10.16 FIRE BLOCKING

Defined Terms: (2018 BC Building Code):

Fire compartment means an enclosed space in a building that is separated from all other parts of the building by enclosing construction providing a fire separation having a required fire-resistance rating.

Fire separation (F.S.) means a construction assembly that acts as a barrier against the spread of fire.

Fire-resistance rating (F.R.R) means the time in minutes or hours that a material or assembly of materials will withstand the passage of flame and the transmission of heat when exposed to fire under specified conditions of test and performance criteria, or as determined by extension or interpretation of information derived therefrom as prescribed in this Code.

FIRE PROTECTION - GENERAL DEFINITIONS

Defined Terms: (2018 BC Building Code):

Fire stop means a system consisting of a material, component and means of support used to fill gaps between fire separations or between fire separations and other assemblies or used around items that wholly or partially penetrate a fire separation.

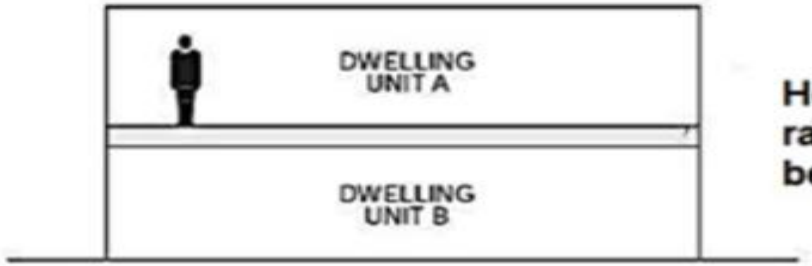
Fire block means a material, component or system that restricts the spread of fire within a concealed space or from a concealed space to an adjacent space. (no fire separations within a unit)

FIRE PROTECTION - GENERAL DEFINITIONS

Fire Exposure (9.10.3.3.)

Floor, Roof and Ceiling Assemblies

In fires, horizontal assemblies can be exposed to much hotter temperatures on their underside surfaces than their top surfaces since hot gasses rise and are replaced at floor level by cooler air, therefore, floor, roof and ceiling assemblies shall be rated for exposure to fire on the underside.



Horizontal fire separations rated for fire exposure from below

9.10.3.3. Fire Exposure

1) Floor, roof and ceiling assemblies shall be rated for exposure to fire on the underside.

2) Exterior walls shall be rated for exposure to fire from inside the *building*, except that such walls need not comply with the temperature rise limitations required by the standard tests referred to in Article 9.10.3.1. if such walls have a *limiting distance* of not less than 1.2 m, and due allowance is made for the effects of heat radiation in accordance with the requirements in Part 3.

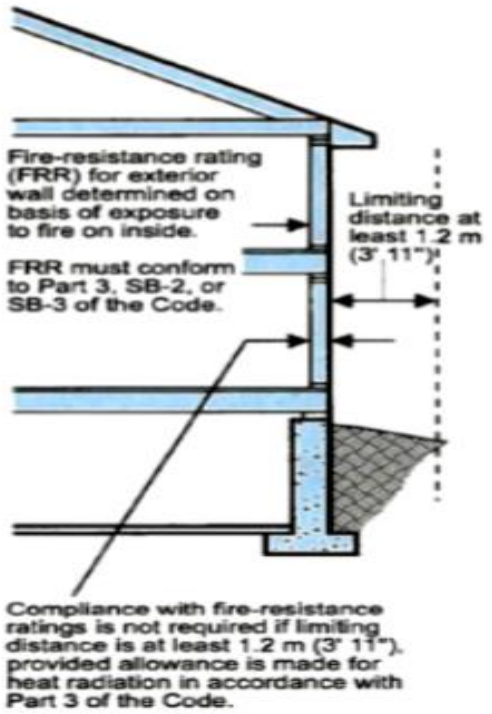
3) Interior vertical *fire separations* required to have *fire resistance ratings* shall be rated for exposure to fire on each side.

Fire Exposure (9.10.3.3.)

Exterior Wall Assemblies

Exterior walls shall be rated for exposure to fire from inside the building. This is to provide a level of fire protection which limits the spread of fire **to an adjacent building not from an adjacent building**. Such walls need not comply with the temperature rise limitations required by the standard tests referred to in Article 9.10.3.1. if:

- such walls have a limiting distance of not less than 1.2 m, and
- due allowance is made for the effects of heat radiation in accordance with the requirements in Part 3. See 3.2.3.1.(9)



9.10.3.3. Fire Exposure

1) Floor, roof and ceiling assemblies shall be rated for exposure to fire on the underside.

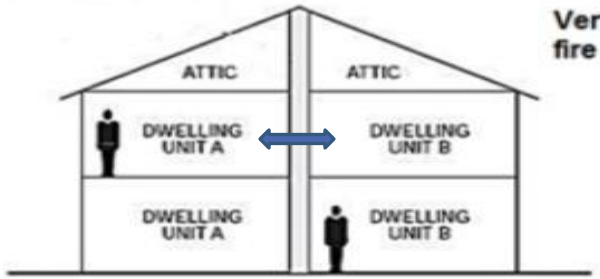
2) Exterior walls shall be rated for exposure to fire from inside the *building*, except that such walls need not comply with the temperature rise limitations required by the standard tests referred to in Article 9.10.3.1. if such walls have a *limiting distance* of not less than 1.2 m, and due allowance is made for the effects of heat radiation in accordance with the requirements in Part 3.

3) Interior vertical *fire separations* required to have *fire resistance ratings* shall be rated for exposure to fire on each side.

Fire Exposure (9.10.3.3.)

Interior Vertical Fire Separations

Because interior walls can be exposed to equally severe fires from either direction, interior vertical fire separations inside a building such as common walls between side by side dwelling units in duplexes, townhouses or row houses between a dwelling unit and a storage garage that does not serve the dwelling unit or shared means of egress for the dwelling units must be rated for fire exposure from each side.



Vertical fire separations rated for fire exposure from either side

9.10.3.3. Fire Exposure

1) Floor, roof and ceiling assemblies shall be rated for exposure to fire on the underside.

2) Exterior walls shall be rated for exposure to fire from inside the *building*, except that such walls need not comply with the temperature rise limitations required by the standard tests referred to in Article 9.10.3.1. if such walls have a *limiting distance* of not less than 1.2 m, and due allowance is made for the effects of heat radiation in accordance with the requirements in Part 3.

3) Interior vertical *fire separations* required to have *fire resistance ratings* shall be rated for exposure to fire on each side.

Subsection 9.10.9. Fire Separations

Continuous Barrier (9.10.9.2.)

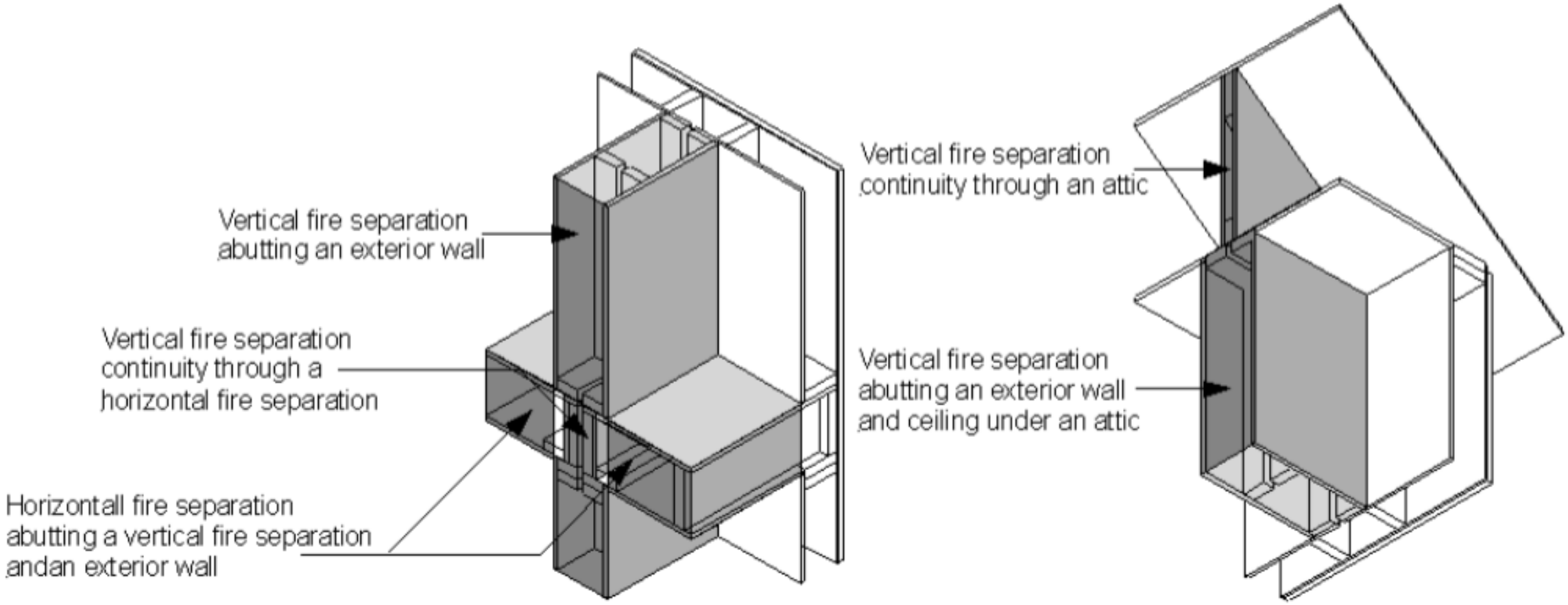
Fire separations with a required fire resistance rating in a building create separate fire compartments to contain a fire within and retard fire spread to other parts of the building.

Since they are intended to restrict the passage of smoke and fire, they are required to be constructed to provide continuous protection. To be effective, the continuity of a fire separation must be maintained where it abuts another fire separation, a floor, a ceiling, a roof or an exterior wall assembly.

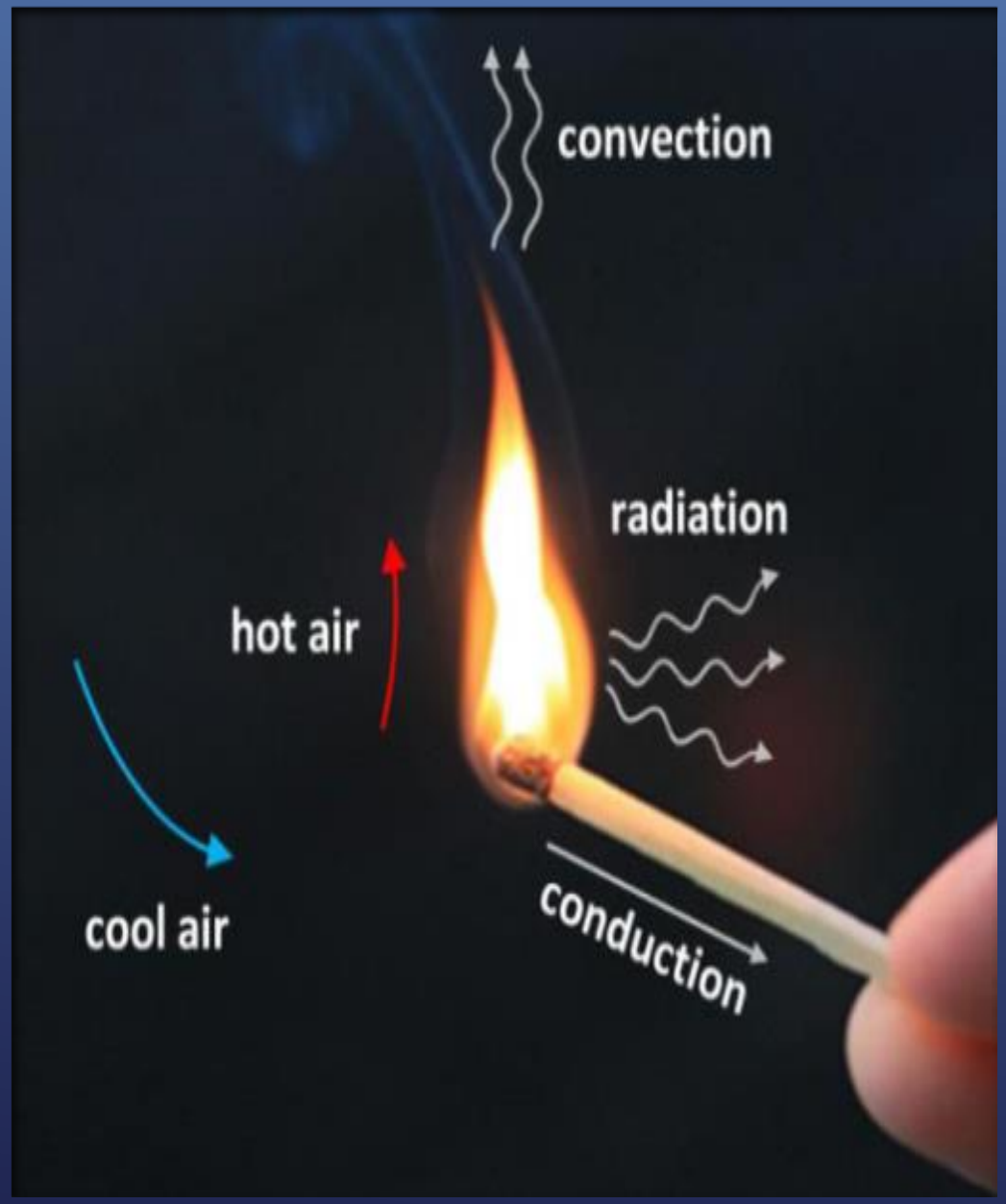
All gypsum board joints in the assemblies described in Sentence (1) shall conform to CSA A82.31-M, “Gypsum Board Application,” and penetrations in these assemblies shall be sealed using flexible sealant or tape to maintain the integrity over the entire surface.

Subsection 9.10.9. Fire Separations

Continuous Barrier (9.10.9.2.)



THINK - CONTAIN WITHIN THE BOX



HOW FIRE SPREADS

- Conduction
- Convection
- Radiation

FIRE TRIANGLE

Controlling one will stop or reduce the spread of fire.

FIRE TRIANGLE

What factors of fire are being considered?

9.10.16. Fire Blocks

9.10.16.1. Required Fire Blocks in Concealed Spaces

1) Vertical concealed spaces in interior walls and exterior walls shall be separated by *fire blocks*

a) one from the other, and

b) from horizontal concealed spaces.

2) Horizontal concealed spaces in attics, roof spaces, ceilings, floors, and crawl spaces shall be separated by *fire blocks*

a) one from the other, and

b) from vertical concealed spaces.

3) *Fire blocks* shall be provided at all interconnections between concealed vertical and horizontal spaces in interior coved ceilings, drop ceilings and soffits where the exposed construction materials within the concealed spaces have a surface *flame-spread rating* greater than 25.

9.10.16.2. Required Fire Blocks in Wall Assemblies

1) Except as permitted in Sentence (2), *fire blocks* shall be provided to block off concealed spaces within wall assemblies, including spaces created by furring,

a) at each floor level,

b) at each ceiling level where the ceiling contributes to part of the required *fire-resistance rating*, and

c) at other locations within the wall, so that the distance between *fire blocks* does not exceed 20 m horizontally and 3 m vertically.

2) *Fire blocks* described in Sentence (1) are not required, provided

a) the insulated wall assembly contains not more than one concealed air space whose horizontal thickness is not more than 25 mm,

b) the exposed construction materials within the space are *noncombustible*,

c) the exposed construction materials within the space, including insulation, but not including wiring, piping or similar services, have a *flame-spread rating* of not more than 25, or

d) the concealed wall space is filled with insulation.

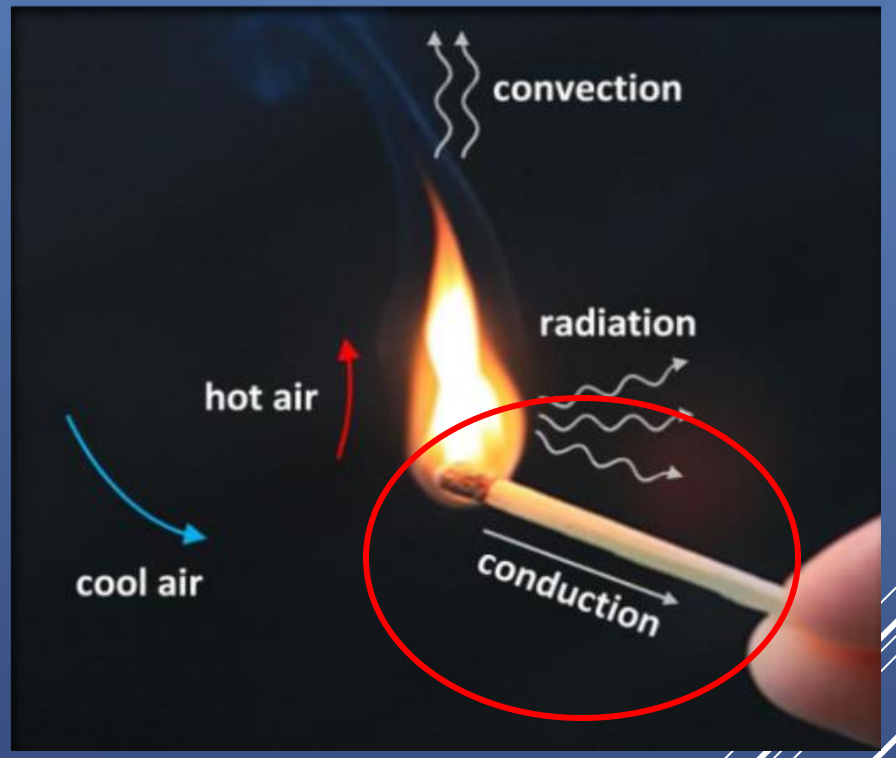
Fire Spread By Conduction

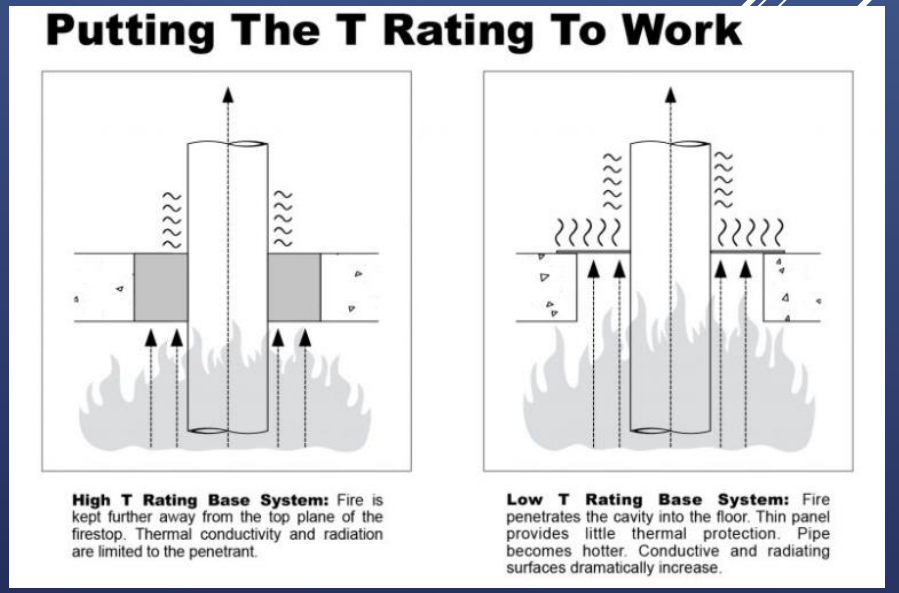
The fire will generally follow the heat or sometimes the heat from conduction may cause a new fire to ignite elsewhere. The heat from the fire is passed from molecule to molecule along the length of the material. The fire will generally follow the heat or sometimes the heat from conduction may cause a new fire to ignite elsewhere.

In houses, walls between rooms are built from materials which are good insulators this helps to keep the heat in the room on a winter's night and helps to slow the rate at which fires spread through houses.

- Conduction Video

HOW FIRE SPREADS



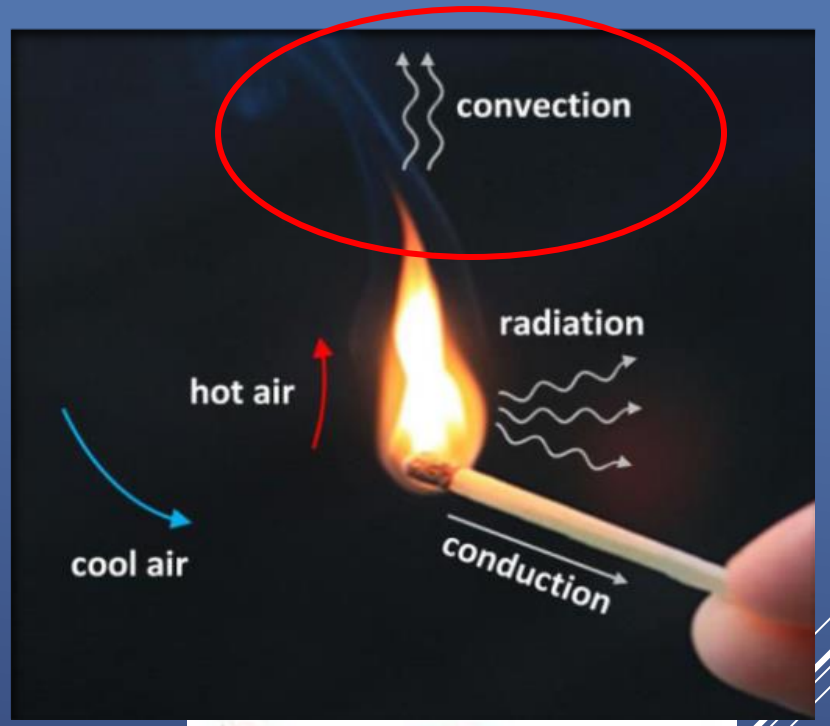


HOW FIRE SPREADS

Fire Spread By Convection

This type of heat transfer occurs only in liquids and gases. The heat from the fire can heat the air, to a very hot temperature. Hot air will always rise and it will flow under the ceiling of a room spreading the heat from the fire. This is the main way in which a fire spreads throughout a house. When a fire is burning large amounts of hot gases and smoke are produced. These will travel through the house in hot air currents often igniting more combustible materials causing the fire to spread.

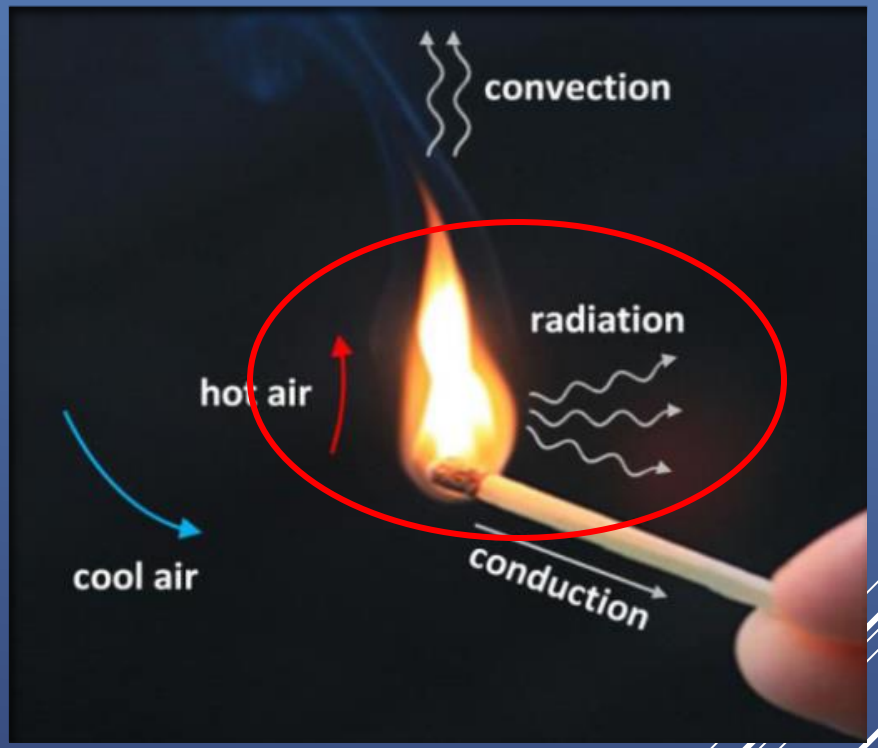
Convection Video



Fire Spread By Radiation

In this form of heat transfer, the heat does not travel through a material like conduction nor does it flow through air or liquid currents like convection. It simply travels in rays similar to sun rays, in straight lines away from the fire. The heat from the rays can be absorbed by combustible materials which cause them to heat up and perhaps ignite. The main principle of radiation is: the closer the material is to the fire the more radiated heat it will receive. Certain materials such as concrete do not allow radiation to pass through them. Therefore, materials like concrete are good construction materials to help prevent fires spreading through houses or to nearby buildings. Radiated heat from a burning building can in some circumstances give rise to fire in a nearby building.

- Radiation Video



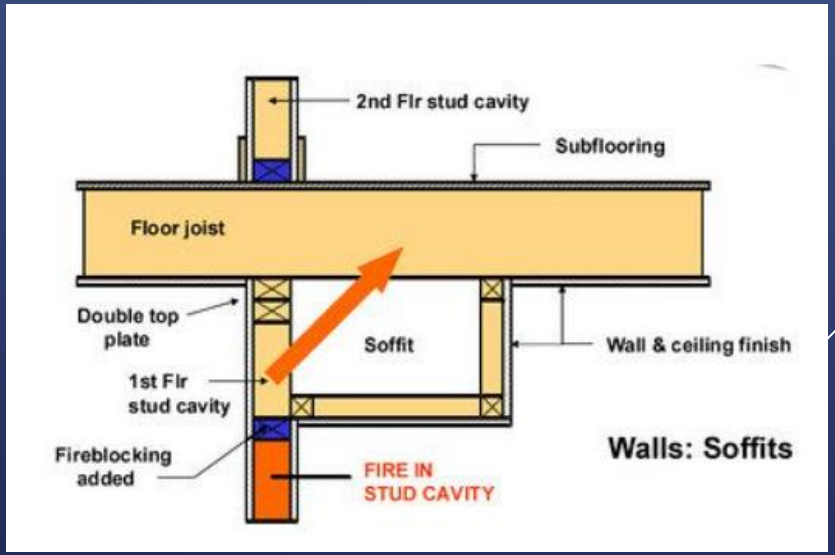
HOW FIRE SPREADS

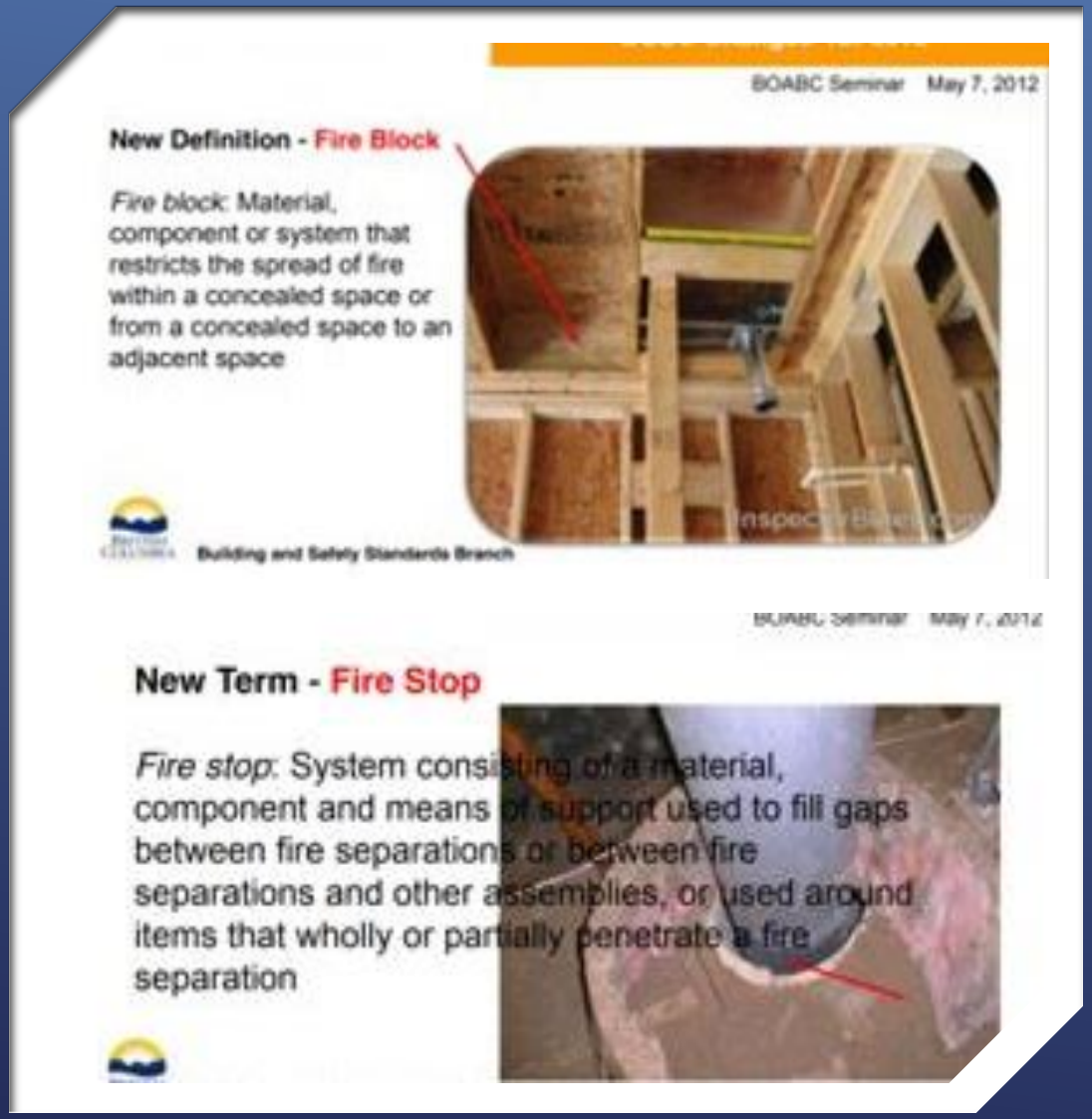
CONTROL FIRE AND SMOKE BY KEEPING IT IN THE BOX AND CONTROL ELEMENTS OF FIRE

BOABC Module 03 (D – E –F)
Fire Protection
9.10.16.

Following slides taken from BOABC teaching module 03

FIRE BLOCKING
9.10.16



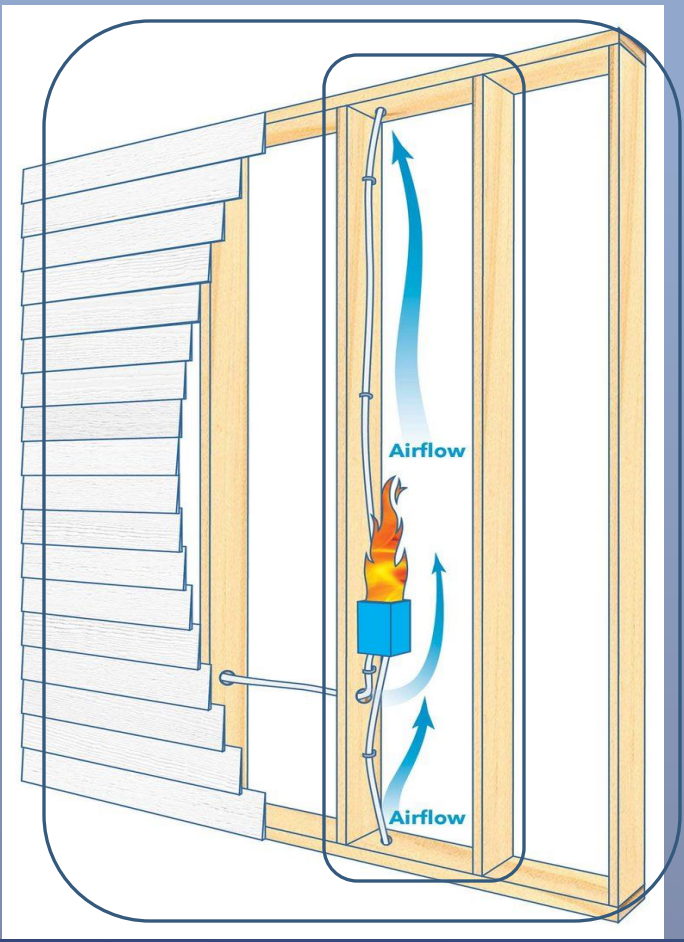


2012 BCBC CHANGES - FIRST DEFINED TERM FOR FIRE BLOCKING.

Subsection 9.10.16. Fire Blocks

Introduction

Opportunities for air movement in concealed spaces increases the risk of an undetected fire spread within such spaces if they contain sufficient combustible materials of a type that will allow flames to travel on their surface. The extent of fire spread can therefore be controlled through the use of a fire block by depriving the fire of oxygen by blocking off such spaces at strategic locations, or in the case of larger spaces, dividing them into smaller spaces. Such spaces range in size from framing or furring spaces to crawl spaces, ceiling spaces and attics.

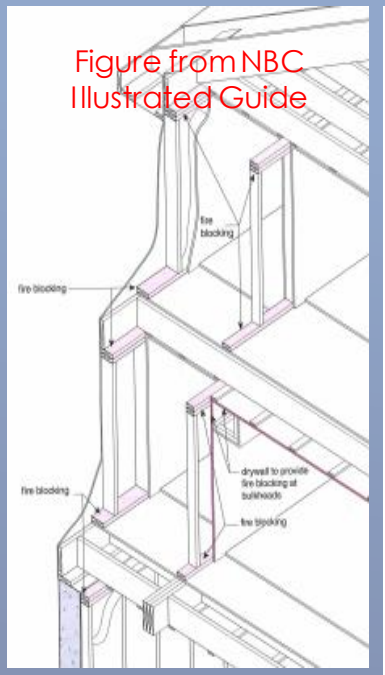


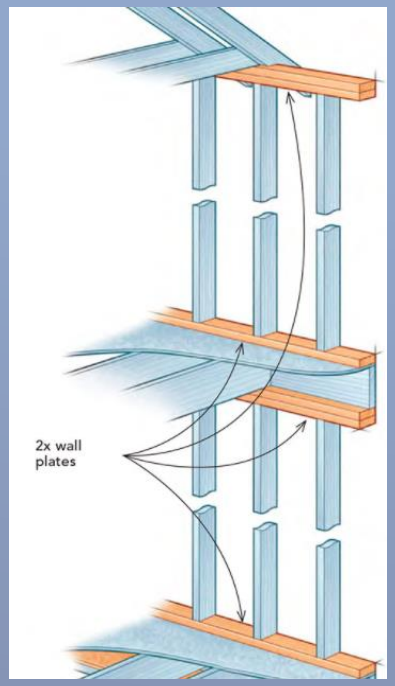
Subsection 9.10.16. Fire Blocks

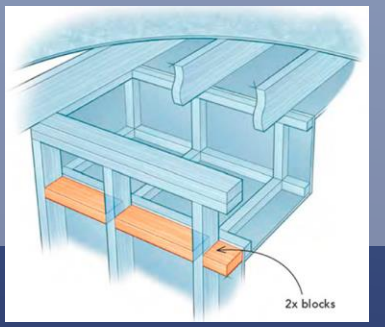
Required Fire Blocks in Concealed Spaces (9.10.16.1.)

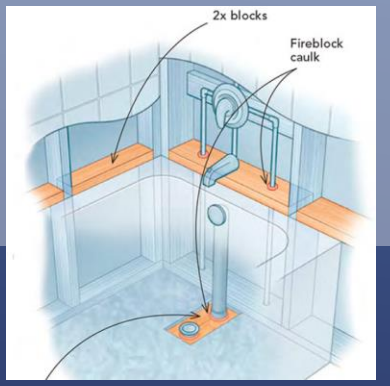
Fire blocks are required wherever concealed vertical and horizontal spaces interconnect in interior coved ceilings, drop ceilings and soffits where the exposed construction materials within the concealed spaces have a surface flame-spread rating greater than 25. This condition is very common over kitchen cabinets, one piece tub or showers, and fireplace enclosures that link concealed spaces in walls and ceiling/floor systems if not properly fire blocked.

Figure from NBC Illustrated Guide









[7 Common Fireblocking Locations - Fine Homebuilding]

Subsection 9.10.16. Fire Blocks

Fire Block Materials (9.10.16.3.)

Except as permitted by Sentences (2) and (3), fire blocks are required to be constructed of materials that will remain in place and prevent the passage of flames for not less than 15 min when subjected to the standard fire exposure in CAN/ULC-S101, "Fire Endurance Tests of Building Construction and Materials".

????

Subsection 9.10.16. Fire Blocks

Fire Block Materials (9.10.16.3.)

Exceptions:

Fire blocks are deemed to comply if they are constructed of not less than:

- 0.38 mm sheet steel
- 12.7 mm gypsum wallboard
- 12.5 mm plywood, OSB or waferboard, with joints having continuous supports
- 2 layers of 19 mm lumber with joints staggered, or
- 38 mm lumber

Subsection 9.10.16. Fire Blocks

Exceptions:

In buildings permitted to be of combustible construction, semi-rigid fibre insulation board produced from glass, rock or slag, is permitted to be used to block the vertical space in a double-frame wall assembly formed at the intersection of the floor assembly and the walls, provided that:

- the width of the vertical space is not more than 25 mm, and
- the insulation board
  - has a density not less than 45 kg/m^3 ,
  - is securely fastened to one set of studs,
  - extends from below the bottom of the top plates in the lower storey to above the top of the bottom plate in the upper storey, o and
  - completely fills the nominal gap of 25 mm (1 in) between the headers and between the wall plates.

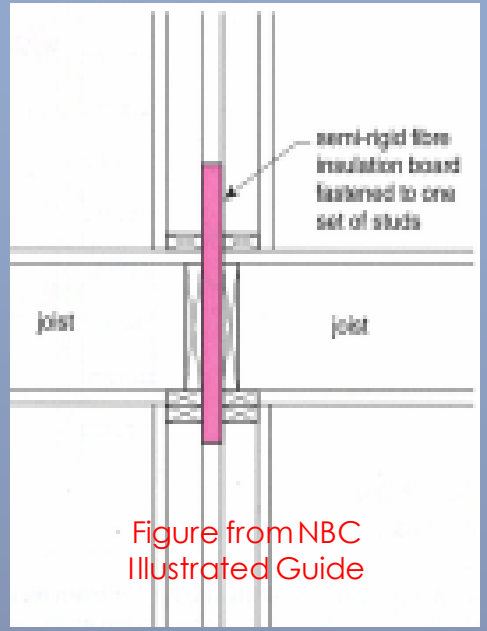
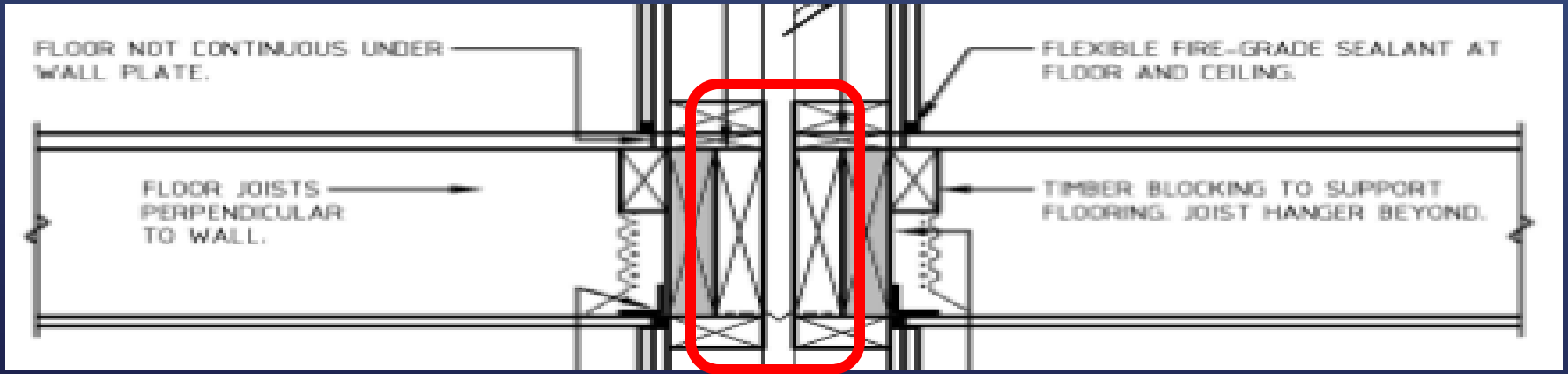


Figure from NBC Illustrated Guide



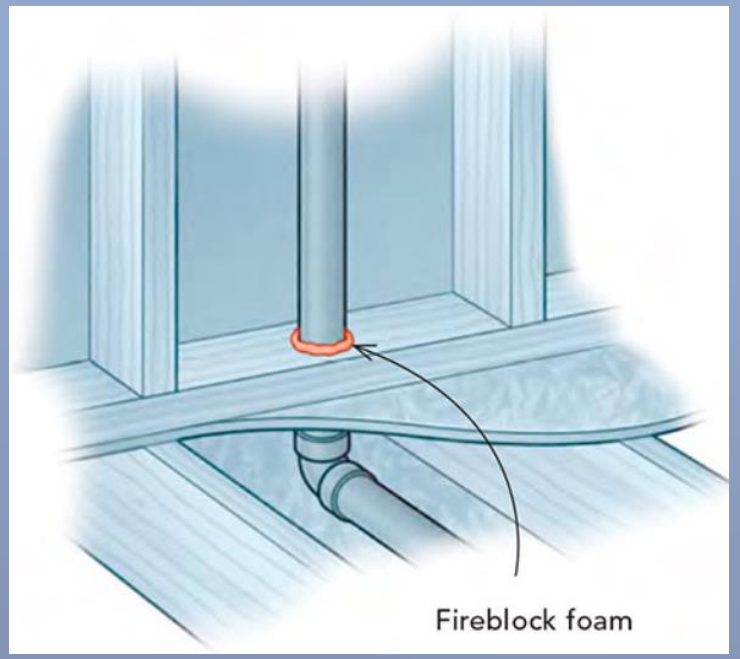
How often is this used? Installed correctly?

Subsection 9.10.16. Fire Blocks

Penetration of Fire Blocks (9.10.16.4.)

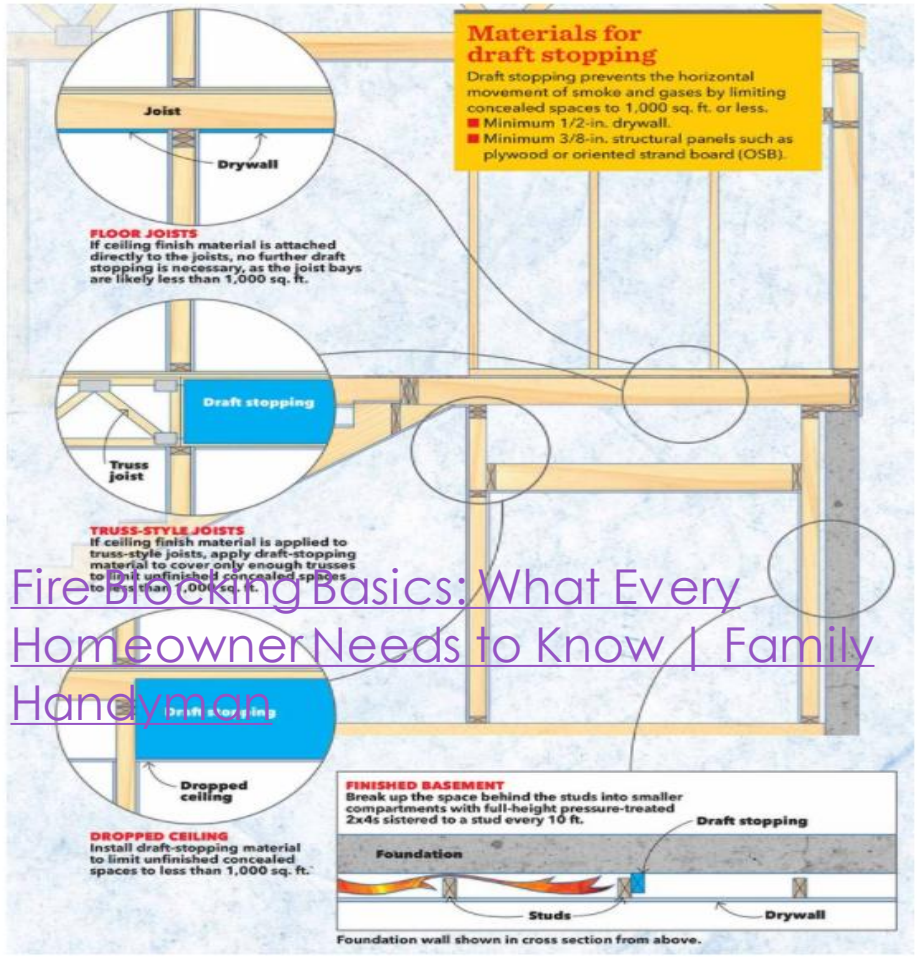
Since fire blocks serve to provide a physical barrier to the spread of fire, any holes through it for the passage of services have to be sealed in such a way that fire will not pass through the fire stopping material for a reasonable period of time.

Therefore, where fire blocks are pierced by pipes, ducts or other elements, the effectiveness of the fire blocks is required to be maintained around such elements.



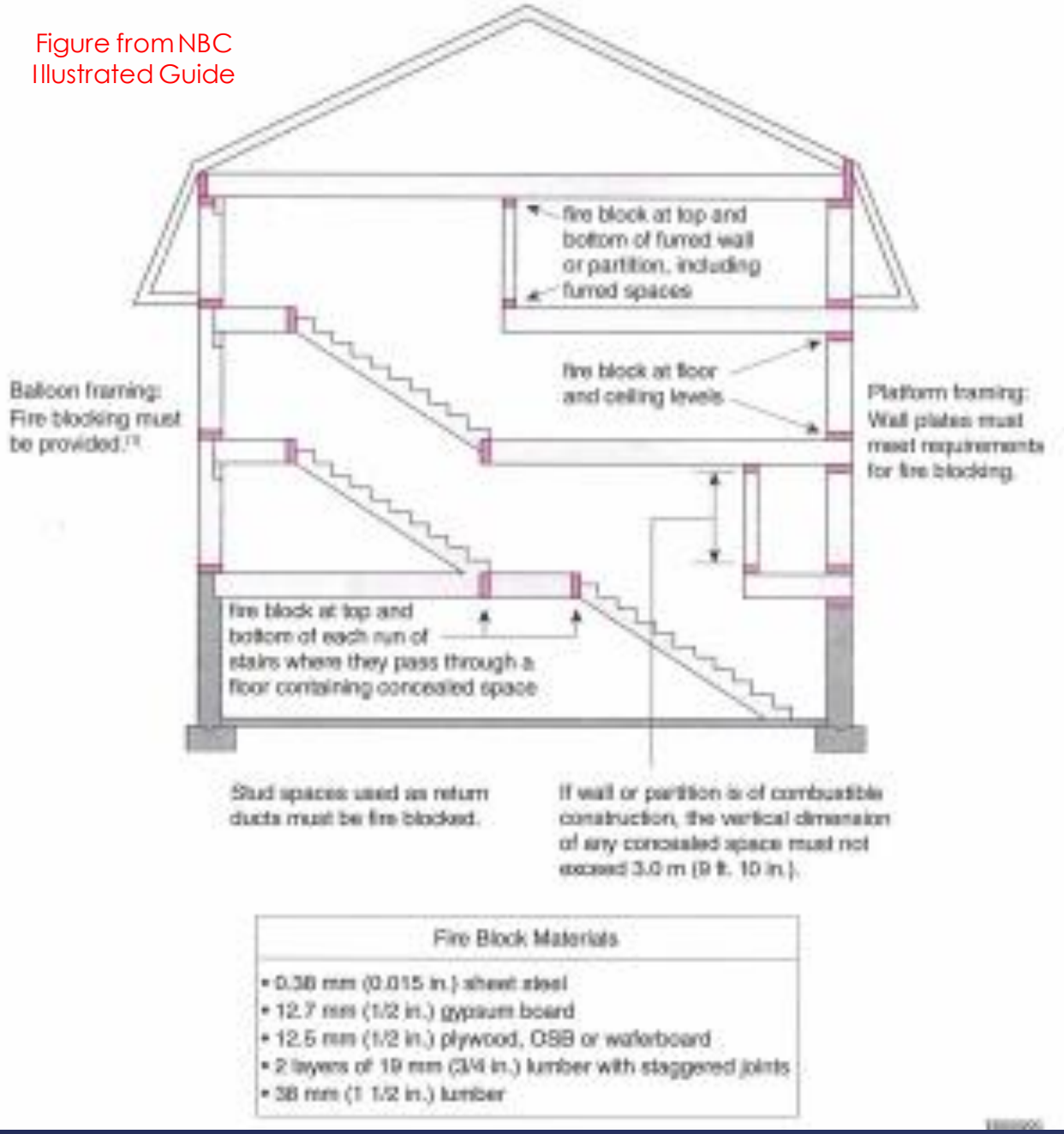
How is this commonly done in the field?

Draft Fire-Blocking



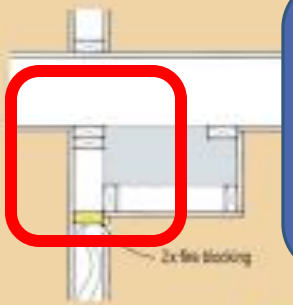
[Fire Blocking Basics: What Every Homeowner Needs to Know | Family Handyman]

Figure from NBC Illustrated Guide



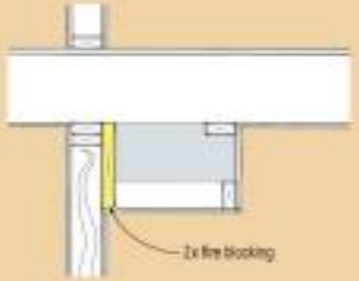
Fire-Blocking Strategies

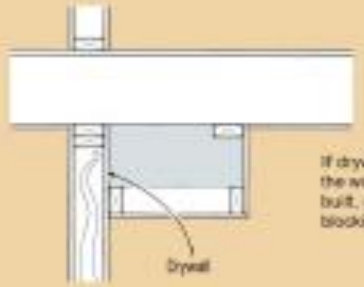
Without fire blocking, a soffit provides a path for fire to spread from a wall cavity to the joist bays above. There are several ways to fire block an area like this.



Who is allowing insul. Batts? 9.10.16.2 (d)

Installing a single piece of material across the face of the studs is often faster than using individual blocks. Approved materials include 2x lumber, ⅜" structural sheathing, and ½" drywall.





If drywall has been installed on the wall before the soffit is built, no additional fire blocking is needed.

Fire Blocking Locations

City of Penticton hand-out

Permitted Fire Blocking Materials

- 0.38 mm sheet steel,
- 12.7 mm gypsum board,
- 12.5 mm plywood, OSB or waterboard, with joints having continuous supports,
- 2 layers of 19 mm lumber with joints staggered,
- 38 mm lumber

Fire Blocking Exemption for Walls

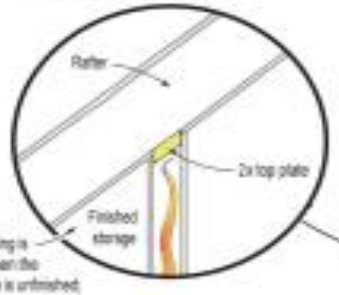
- No blocking required in walls where the wall is insulated and insulation is supported from moving in the cavity.

Penetrations

- Penetrations for wires and piping between horizontal and vertical spaces are required to be fire/smoke sealed.

Knee Walls

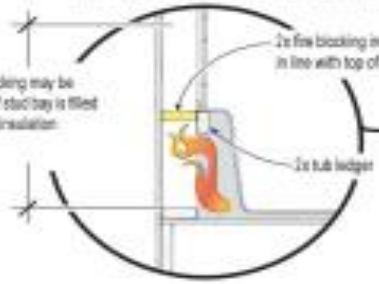
If the space behind the knee wall is finished, the stud bays must be fire blocked. Here, the top plate acts as the fire blocking, preventing flames from entering the rafter bay.



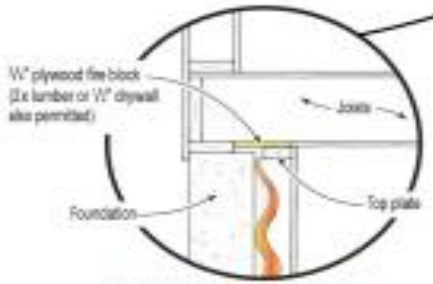
Note: Fire blocking is required when the wall space is unfinished; bays are considered the unfinished attic

Tub Deck

Fire blocking is required in the stud bays around a drop-in tub on interior walls.



blocking may be omitted if stud bay is filled with batt insulation



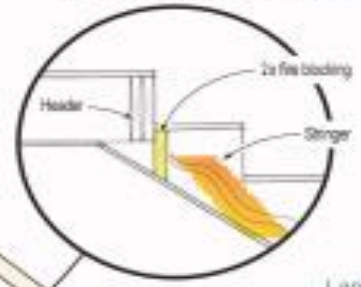
Perimeter Basement Walls

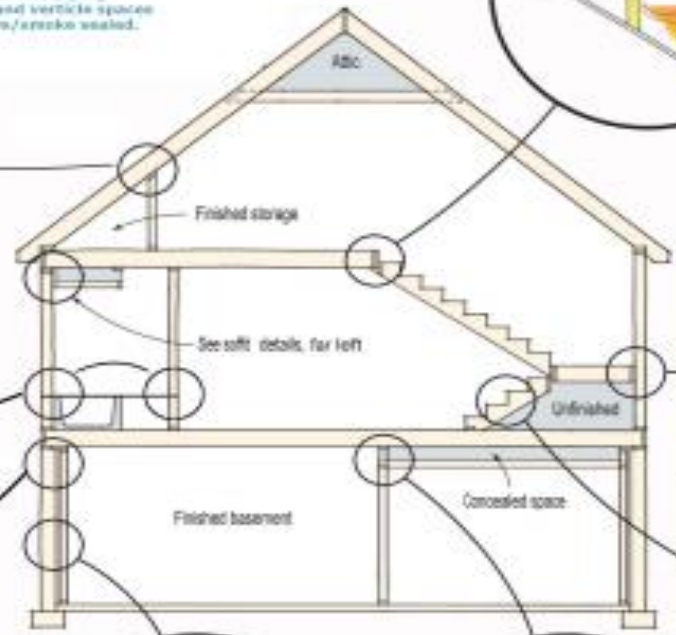
A space behind a 2x4 perimeter basement wall must be separated from the joist bays above.

9.10.16.2 - B.C.B.C.

Stair Stringers

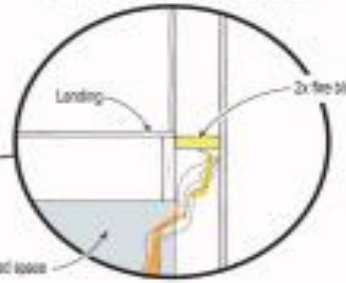
The space between stringers must be separated from the upper-story floor-joist bays. 9.10.16.1 (4) - B.C.B.C.



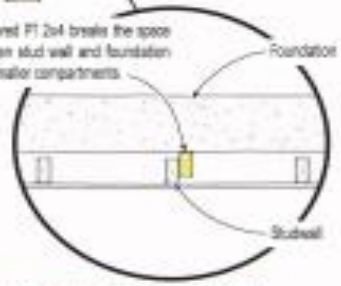


Landings

If the area underneath the landing is unfinished, the wall bays must be blocked.

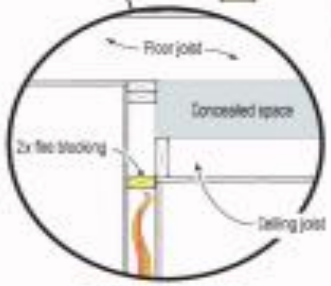


A sidered PT 2x4 breaks the space between stud wall and foundation into smaller compartments



Concealed Spaces in Walls

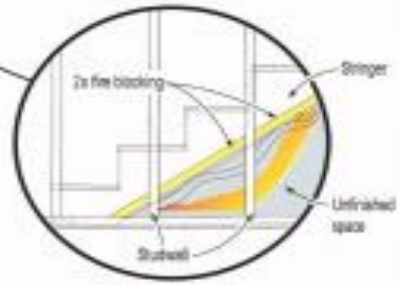
Where a wall is not drywalled or sheathed on both sides — which is typical of furred-out basement walls and double-stud walls — there must be a full-height fire block every 20 meters horizontally. 9.10.16.1 (1) - B.C.B.C.



Dropped Ceilings

Dropped ceilings can be blocked in the same way as soffits (see "Fire-Blocking Strategies," far left).

9.10.16.1 (5) - B.C.B.C.



Stair Stringers

If the area below the stair is unfinished, fire blocks are required in the stud bays alongside the stringer. If the area beneath is finished with minimum ½" drywall, this blocking is typically not required.

I am a level 1 inspector so I deal with mostly SFD applications. My question was in regards to required fireblocking in 9.10.16. i see calls made where when an attic space is over 20m in any directions they will ask for fireblocking to be installed. The way I read the clause(s) below is that fireblocking installed at 20m intervals is required only when you have both 5a AND 5b – not just because the attic space is over 20m.

9.10.16. Fire Blocks

5) Unsprinklered concealed spaces of combustible construction created by a ceiling, roof space or unoccupied attic space shall be separated by fire blocks into compartments
a) not more than 60 m in greatest dimension, and
b) where such space contains exposed construction materials having a surface flame-spread rating greater than 25, not more than 300 m2 in area.

6) No dimension of the concealed space described in Clause (5)(b) shall exceed 20 m.

I would appreciate any guidance you can provide.

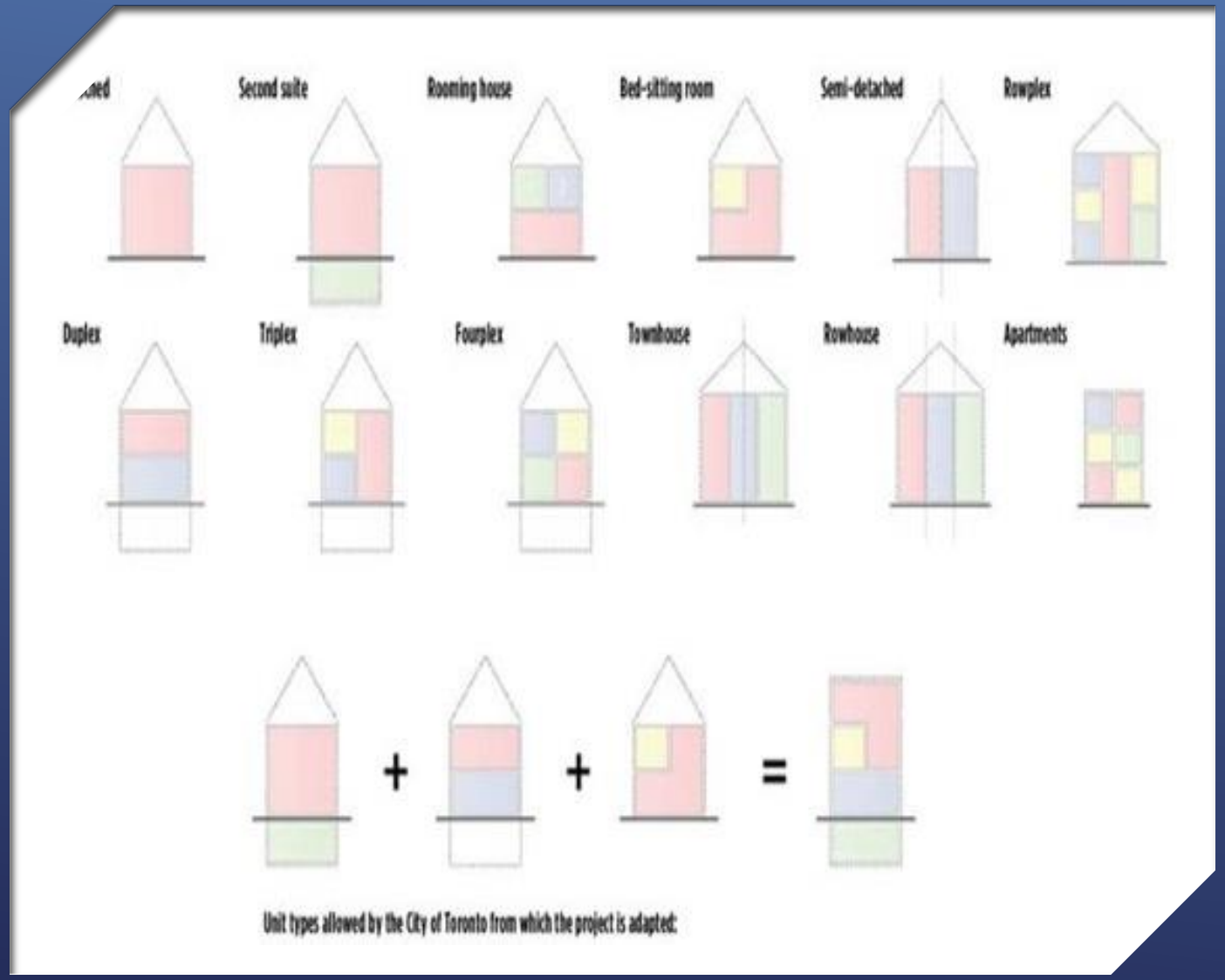
MEMBER QUESTION – 9.16.10.1(5)

My questions would be about the use of rock wool insulation. I would assume it is acceptable as a continuity measure in fire blocks (stuffed into gaps between approved materials and penetrations) as it is acceptable as a fire stop. It is also acceptable as described in these scenarios: https://www.rockwool.com/siteassets/o2-rockwool/documentation/technical-guides/commercial/rockwool-roxul-safe-application-guide.pdf . But what about intersections between vertical and horizontal spaces? That scenario is not specifically described in their product testing. I would assume it should be adequate for that use too.

My other question is about the use of fire block spray foams. So far I haven't seen one tested to the Canadian standards necessary, so I haven't allowed it to be used. Most are tested to a modified ASTM standard, but never seen one tested to CAN/ULC-S101. Plus I hear they burn like a s.o.b.

MEMBER QUESTION – 9.16.10.1(5)

Rockwool Guide



Unit types allowed by the City of Toronto from which the project is adapted:

INDUSTRY CHALLENGES

- Lack of Fire Protection knowledge
- Lack of training and trade certification
- more complex buildings/mixed uses
- Unclear drawings and specifications

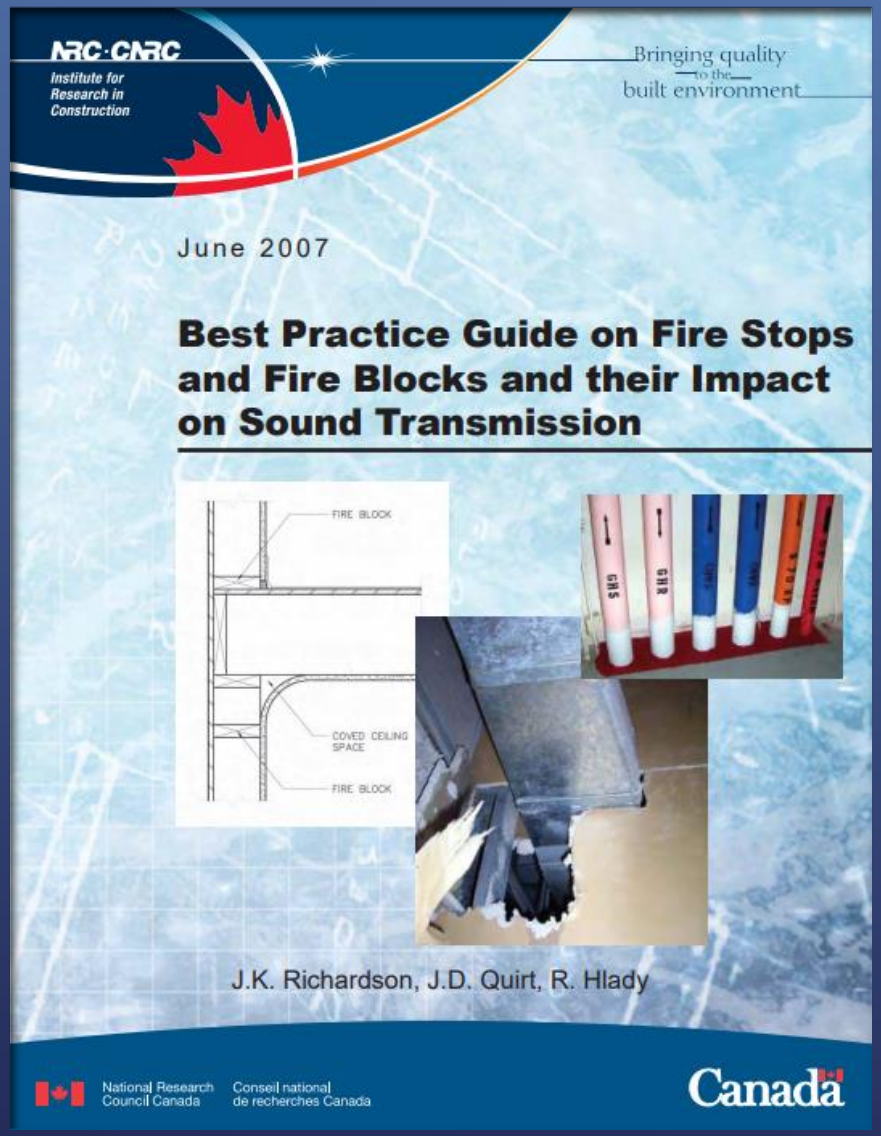
INDUSTRY CHALLENGES

- New products – wrong application
- Mix and match of listed products
- General Contractor or Trades
- Post Occupancy alterations

INDUSTRY CHALLENGES

- Is your building department using a specific evaluation method & inspections?
- How is that information provided on drawings and verified on site?
- Is this information understood by the design - builder - trades?

Please forward responses to BOABC – kkunka@boabc.org



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Best practice guide on fire stops and fire blocks and their impact on sound transmission

From National Research Council Canada

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DOI	https://doi.org/10.4224/40000432
Author	Richardson, J. K.; Quirt, J. D.[1] ; Hlady, R.
Name affiliation	1. National Research Council of Canada. NRC Institute for Research in Construction
Format	Text, Standard or Specification
Physical description	232 p.
Subject	Sound transmission and insulation

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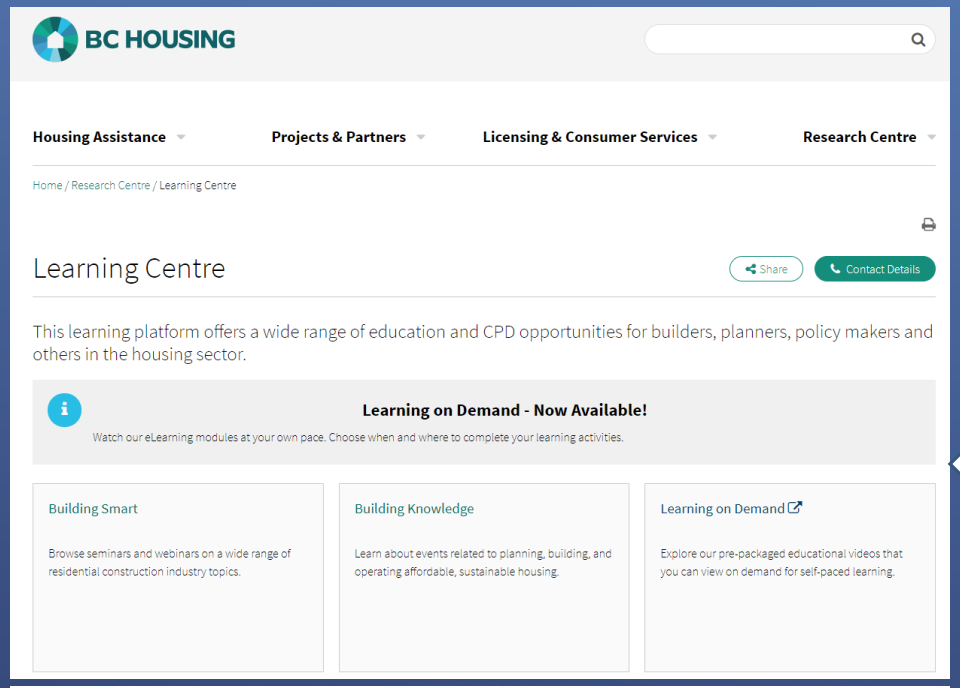
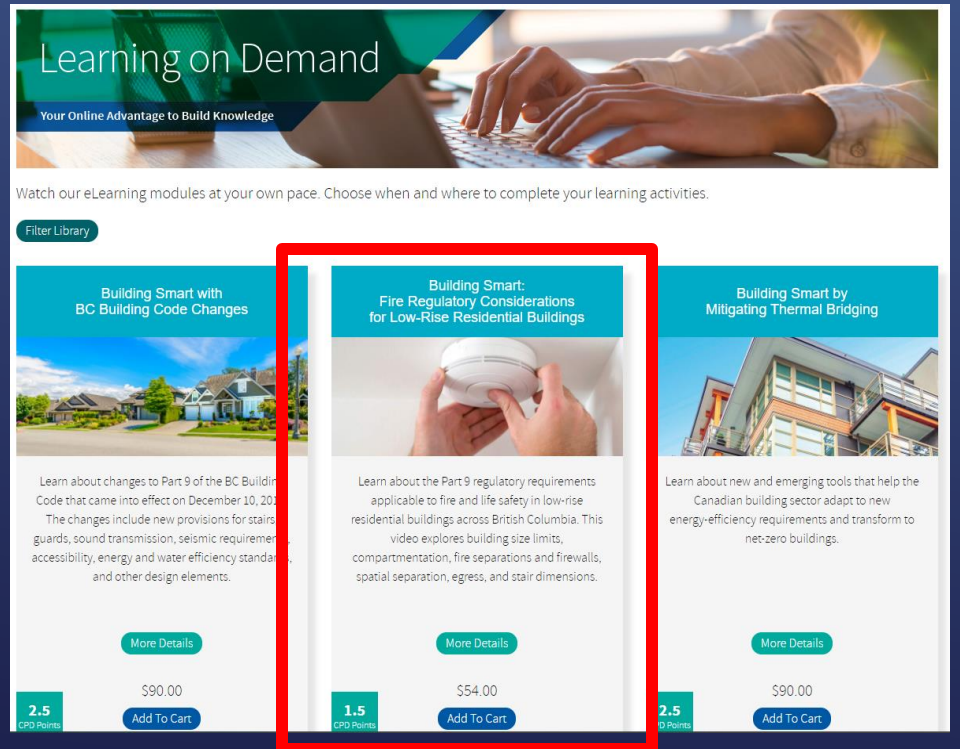
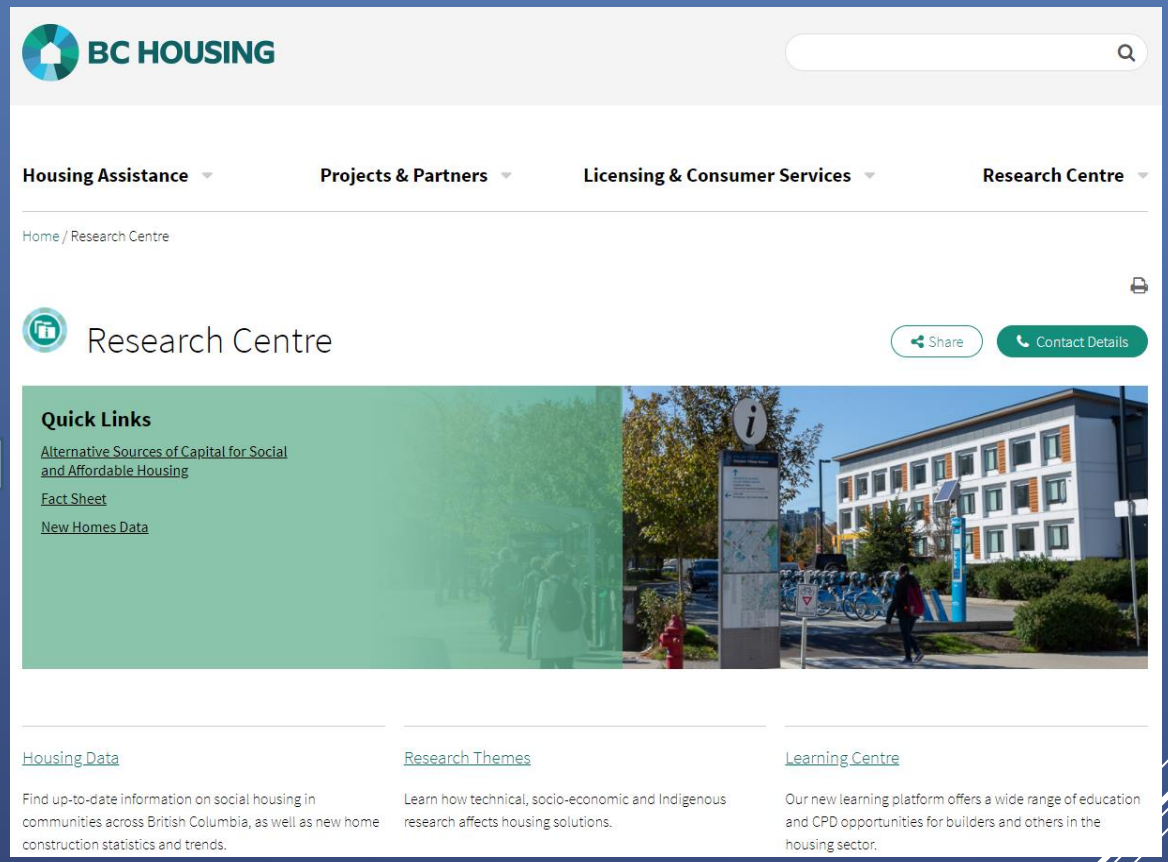
CONTINUED EDUCATION AND RESEARCH







CONTINUED EDUCATION AND RESEARCH

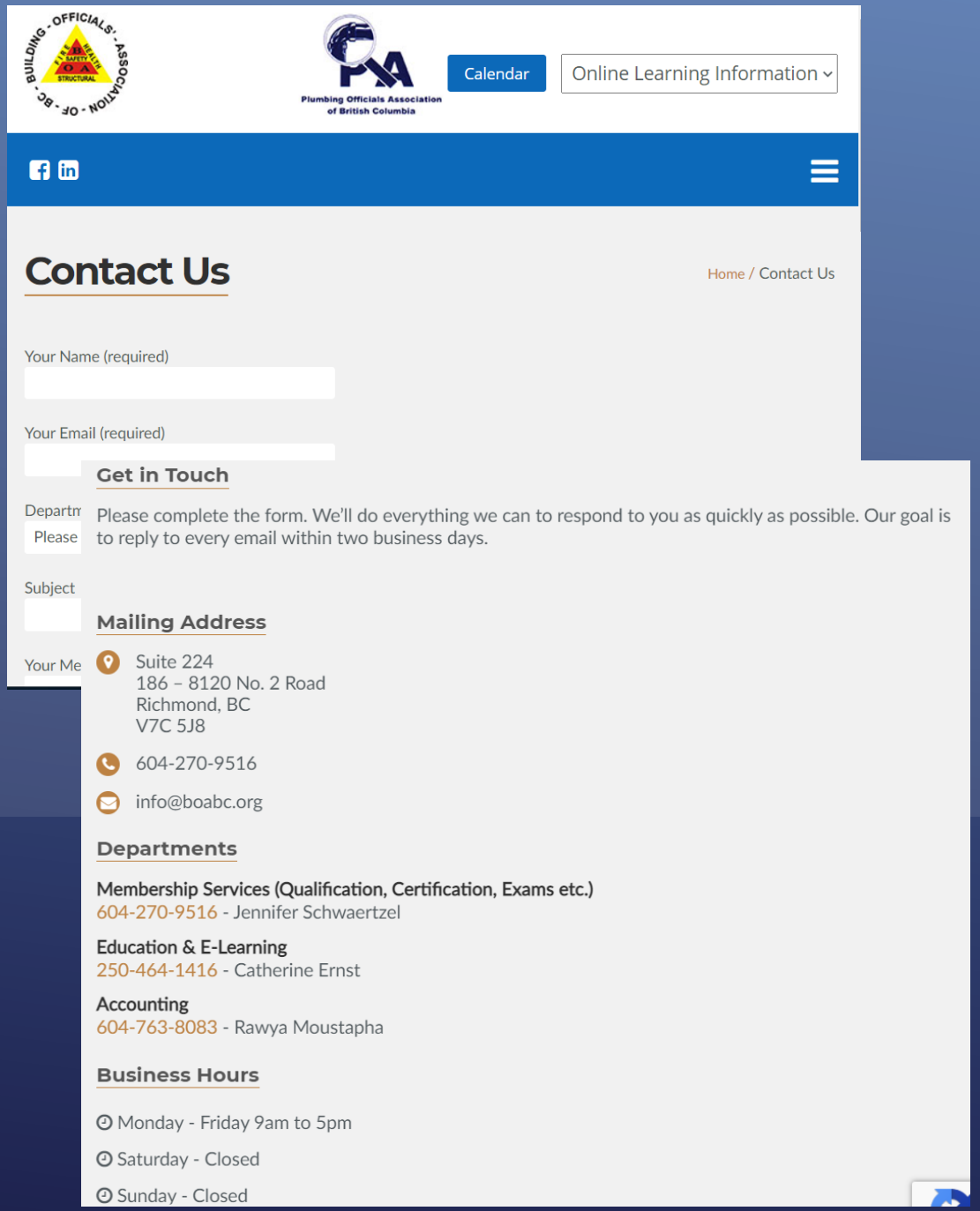
Building Smart: Fire Regulatory Considerations

Learning on Demand Centre Link

Next Session – Sept 23

FIRE BLOCKING, FIRE STOPPING, SMOKE & FIRE DAMPERS – PART 2

OCTOBER 28
COLLECTING ENFORCEMENT EVIDENCE



Session feedback & future topics
kkunka@boabc.org

Engagement & Communication Reminder

- BOABC contacts
- Zone Meetings
- Zone Directors - Mentors
- Member Forum Discussions