

Considerations for Building & Fire Departments in Enforcing the Code

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Acknowledgement

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Agenda

- ROLE OF THE BUILDING DEPARTMENT
- ROLE OF THE FIRE DEPARTMENT
- UNIFORMITY OF ENFORCEMENT
- OBOA: WHAT MUNICIPALITIES WILL BE TARGETING
- PLANS EXAMINATION – WHAT IS CHECKED?
 - HOW ARE STRUCTURAL DRAWINGS CHECKED?
 - THE IMPORTANCE OF THE SHRINKAGE ISSUE
 - THE EXIT COCOON ... AND WHY IT CAN LEAD TO MISERY
- REQUIREMENTS FOR OCCUPANCY

THE *BUILDING CODE ACT*, 1992

- In effect since 1975 the Ontario Building Code (the Code), is a regulation under the Building Code Act, 1992 addresses new construction, renovations, change of use or demolition of buildings
- It sets minimum standards for construction across Ontario to ensure public safety in buildings
- The Ministry of Municipal Affairs and Housing administers the Building Code Act, 1992 and develops the Building Code, while municipalities are responsible for enforcing the Building Code
- Amendments to the Building Code that took effect on January 1, 2015 (O.Reg. 191/14) increase the permitted height of wood buildings from four to six storeys



Role of the Building Department

- The *Building Code Act, 1992* requires each municipality to appoint a qualified Chief Building Official (CBO) and sufficient qualified inspectors to enforce the Act and the Ontario Building Code.
- Duties of CBO and inspectors include:
 - examination of plans submitted for a construction permit
 - issuance of permits (CBO)
 - site inspection of buildings under construction
 - enforcement of the Act in cases of non-compliance

Role of the Fire Department

- Municipal fire departments enforce the Fire Code.
- The Fire Code is a regulation made under the *Fire Protection and Prevention Act, 1997* consisting of a set of minimum requirements respecting fire safety within and around existing buildings and facilities.
- The Fire Chief and members of the fire prevention bureau of each municipality are designated assistants to the Fire Marshal of Ontario and are required to follow the directives of the Fire Marshal.

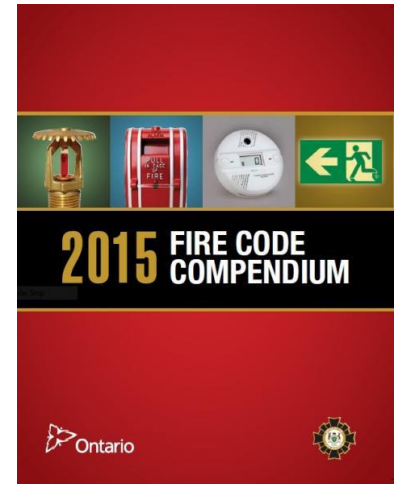
Role of the Fire Department

- The role of the Fire Department is limited, in the case of buildings under construction:

See Subsection 12.(3) of the *Fire Protection and Prevention Act, 1997*:

Buildings under construction

(3) Subject to subsection (4), the fire code does not apply to the unoccupied parts of a building that is under construction within the meaning of the Building Code Act, 1992 or of a predecessor to that Act.



Role of the Fire Department

- The Ontario Ministry of Municipal Affairs and Housing has produced, in conjunction with the Ministries of Labour and Community Safety and Correctional Services, a draft guideline for "Fire Safety During Construction of Mid-Rise Wood Frame Buildings in Ontario", dated April, 2015, for consultation with representatives of selected organizations.
- The selected organizations (which represent a broad expertise from across the fire services, building and insurance industries, bargaining unit representatives and municipalities) were asked to submit comments on the draft guideline by May 15, 2015 and to take part in a meeting scheduled for June, 2015. It is expected that a final guideline to address fire safety during construction will be issued following these consultations.
- To view the draft guideline, see the "News at CodeNews" entry for 15-MAY-2015 at: <http://www.codenews.ca>
- Guidelines are generally not enforceable

Uniformity of Enforcement: Fire Code

- In the case of the *Fire Protection and Prevention Act, 1997* and the Fire Code, there is one Fire Marshal and all Fire Chiefs and fire prevention officials are required to follow the directives of the Fire Marshal
- The Office of the Fire Marshal and Emergency Management (OFMEM) maintains its leadership role by continuously updating its Fire Marshal's Directives, Technical Guidelines, Reports and e-Bulletins to promote uniformity of interpretation and enforcement of the Fire Code

Uniformity of Enforcement: Building Code

- There are over 400 municipal Chief Building Officials + 1 Chief Building Official for Ontario
- Each Chief Building Official (CBO) is independent and has no obligation to abide by decisions of other CBOs
- The Ministry of Municipal Affairs & Housing used to provide guidance to enforcement officials by publishing Building Code Interpretations
- Trend is to 400+ versions of the Building Code
- Roles of the OBOA, TACBOC, & LMCBO

ONTARIO BUILDING OFFICIALS ASSOCIATION



- Founded in 1956 when a group of 40 Building officials from across the Province convened in Hamilton.
- Started developing educational courses in 1974, and became a Certified Educational Institute in 1994.
- Bill Pr40 allowed for Certification of Members based on education examination and experience **CBCO** and **BCQ** in 1992
- Chapter network was introduced in 1978 allowing provincial coverage - 21 chapters in 6 regions.
- Today the association represents over 2000 members in over 400 Municipalities

Uniformity of Enforcement: Building Code

- OBOA plays a leading role in training municipal building officials, builders, design professionals and other Building Code users
- Toronto Area Chief Building Officials Committee (TACBOC) has 5 Advisory Committees to address specific areas of the Ontario Building Code and the *Building Code Act*:
 - CIAC (Code Interpretation Advisory Committee)
 - PAC (Plumbing Advisory Committee)
 - MSAC (Mechanical Services Advisory Committee)
 - SAC (Structural Advisory Committee)
 - BIAC (Building Inspection Advisory Committee)

Uniformity of Enforcement: Building Code

- TACBOC Advisory Committees do not publish their Building Code interpretations to designers and the construction industry
- OBOA has traditionally represented only the interests of building officials and does not see itself as having common interests in with the private sector

Conclusion: Unlike the Fire Marshal's leadership on Fire Code issues, no universally credible entity provides guidance on the Building Code in Ontario

What Municipalities will be Targeting?

- Exit stairwells
 - Details 1.5hr FRR (SB2, SB-3, ULC)
 - Non- combustible
 - Connection details
- Sprinkler drawings
 - NFPA13 vs NFPA13R
 - Balconies
 - Concealed spaces
- Elevations
 - Height (18m or 20 FAR)
 - 10% of building perimeter
 - Finishes (non-combustible or combustible resistance)
 - Adjacent Buildings (not sprinklered = Masonry/concrete firewalls)
- Seismic Calc's (20% higher)
- Compartmentalization

Plans Examination: Structural Design

- The degree of structural plan review varies widely across Ontario:
 - some municipalities make policy decisions not to review structural designs and rely on the seal of the professional engineer – this tends to reduce municipal liability
 - some municipalities, that have competent staff, review structural designs
 - some municipalities, engage a Registered Code Agency (RCA) or a structural engineering consultant to review structural designs

Conclusion: Don't expect the building department to uncover structural errors in all cases.

Plans Examination: Shrinkage

- Larger municipalities have enacted property standards by-laws to deal with maintenance of existing buildings
- Where a mid-rise building employs wood structural elements, a municipality will take precautions to ensure that structural shrinkage does not cause future property standards issues (ie: doors that do not close)
- If not properly addressed at the plans examination stage, shrinkage is likely to increase municipal risk due to claims from TARION and condominium owners

Plans Examination: The Exit Cocoon

New requirement for mid-rise combustible construction:

- Every *exit* shall be separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 1.5 hours and the *fire separation* of *exits* shall be of *noncombustible construction*

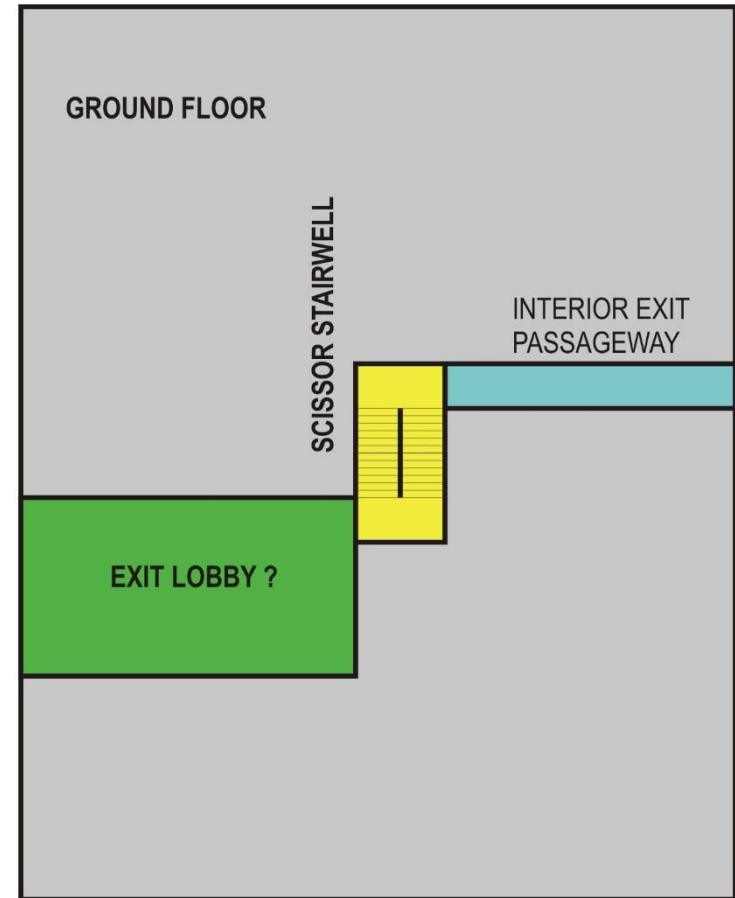
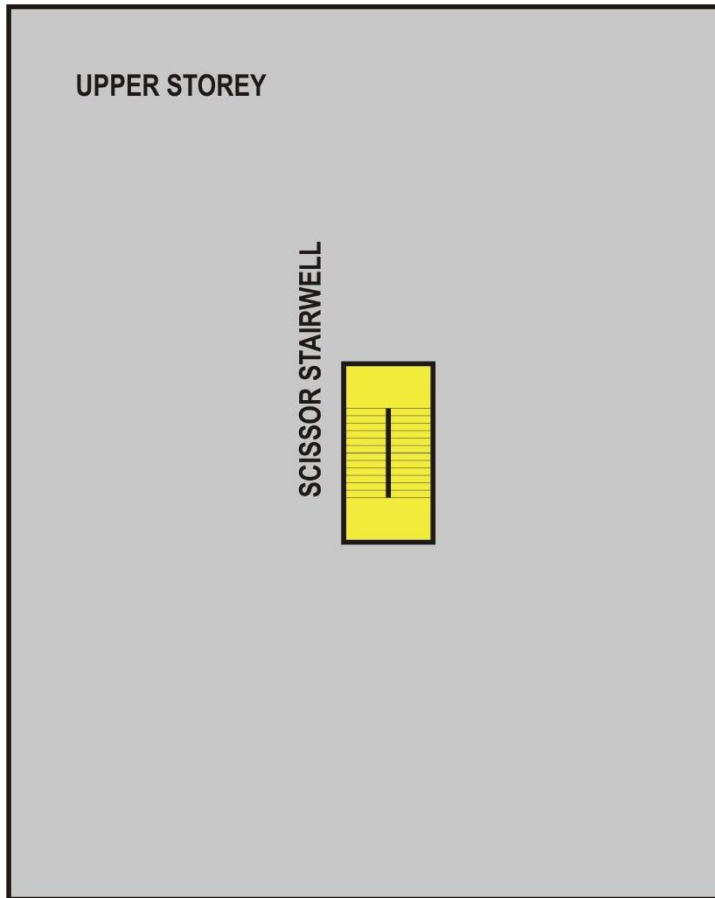
Since the general code requirement is that *noncombustible construction* having a *fire resistance rating* cannot be supported on *combustible construction*, **all supports for exit enclosures have to be of non-combustible construction***.

Div. B, Sentence 3.1.7.5.(3):

Except for *noncombustible construction* required by Subclauses 3.2.2.43A.(2)(c)(i) and 3.2.2.50A.(2)(c)(i), if an assembly is required to be of *noncombustible construction* and have a *fire-resistance rating*, it shall be supported by *noncombustible construction*.

* This was first discussed in Rescon CodeLetter #4, dated January, 2015 by Alek Antoniuk, OAA

Plans Examination: The Exit Cocoon



all supports for *exit* enclosures have to be of *non-combustible construction*

Communication

Engage in discussions with your designer, contractor, and local building departments.

Prior to construction engage you local Fire Service to develop a Construction Fire Safety Plan.

We are all on the same learning curve.



Comments



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