



ADVISORY BULLETIN

April 2016

Subject:

Hoisting and Securing of Construction Material and Debris

Background:

Recent operations of hoisting material at construction sites in Calgary have prompted concerns regarding the safety of the public in instances where unsecured material or debris has fallen or become windborne. These incidents occur on all types of projects from simple, single family home re-roofing projects to large commercial, high rise buildings under construction.

Current construction practice for hoisting of materials especially in high rise construction must be reviewed by contractors. The operation of hoisting materials over the public must be done in a safe manner.

Hoisting operations must be performed in accordance with the following 2014 Alberta Building Code articles

Division C

2.2.14.1. Safety During Construction

- 1) Except as required by Sentence 2.4.4.2.(1), the *constructor* shall be responsible for ensuring compliance with Part 8 of Division B.
- 2) The *constructor* is responsible jointly and severally with the *owner* for any construction or *work* undertaken.

2.2.14.2 Responsibility for Damage

- 1) The *owner* is responsible for the repair of any damage to public property or works located thereon that may occur as a result of undertaking *work* regulated by this Code.
- 2) The *owner* shall ensure that *work* undertaken does not damage or create a hazard to adjacent properties

Materials being blown loose and falling onto adjacent properties would constitute creating a hazard to adjacent property. Division B, Part 8 of the Alberta Building Code also regulates Safety Measures at Construction and Demolition Sites.

Division B

Part 8 Safety Measures at Construction and Demolition Sites

8.2.3.1. Safe Passage Past Site

- 1) Except as provided in Article 8.2.3.2., provisions shall be made at all times for the safe passage of pedestrian and vehicular traffic past the site.
- 2) Material or equipment shall not be placed on any *street* or other public property except as authorized.
- 3) Except as provided in Sentence (4), where a sidewalk exists adjacent to the site it shall be kept clear of obstructions at all times.
- 4) Where construction operations necessitate the obstruction of a sidewalk, a temporary sidewalk shall be provided and it shall be kept clear of obstruction at all times.

8.2.3.2. Protection from Dangerous Activities

- 1) Operations such as the hoisting of major components onto a tall *building* or other activities that constitute a hazard from which the public cannot be protected by barricades, covered ways or similar means shall not be carried out until the *street* or other *public way* is closed.
- 2) If the safety of pedestrians cannot be assured during hoisting or the undertaking of other hazardous operations, then the gates required by Sentence 8.2.1.3.(3) and Clause 8.2.1.2.(1)(h) that are located in the danger zone shall be closed and locked and pedestrians shall be redirected away from the danger

8.2.5.1. Control of Waste Material

- 1) Waste material or other material shall not be permitted to fall freely from one *storey* to another.

8.2.5.2. Removal of Waste Material

- 1) Waste material shall be removed as quickly as possible by means of
 - a) appropriate containers,
 - b) an enclosed shaft or chute conforming to Sentence 8.2.5.4.(1), or
 - c) a hoisting apparatus if large pieces or objects are involved.

8.2.5.3. Enclosures for Waste Material

- 1) Waste material cleared as provided in Sentence 8.2.5.2.(1) shall be deposited in an enclosure
 - a) so arranged as to prevent waste material from being projected beyond the confines of the enclosure, and
 - b) not accessible to the public.

8.2.5.4. Chutes for Waste Material

- 1) The chute described in Clause 8.2.5.2.(1)(b) shall be closed if it is inclined more than 45° to the horizontal.

Advisory:

Practices such as the following are to be considered for **hoisting operations** relative to construction and demolition:

- Road closures to vehicular traffic
- Re-routing of pedestrian traffic
- Personnel controlling traffic
- Posting of adequate signage

Practices such as the following are to be considered for **high buildings and high wind situations**:

- Use of ratchet tie down straps to prevent sheet materials from being distributed by wind both during and after work hours
- Placing materials out of wind exposure
- Removal to ground of materials no longer needed or in excess of what is needed during and after work hours
- Removal of debris throughout work shift and a scan of the work area at end of shift
- Posting of signage at potential high wind locations to remind workers of procedures for securing of materials.

Practices such as the following are to be considered for all buildings regardless of building type in high wind situations:

- Use of ratchet tie down straps to prevent sheet materials from being distributed by wind both during and after work hours
- Placing materials out of wind exposure
- Removal to ground of materials no longer needed or in excess of what is needed during and after work hours
- Appropriate removal of debris throughout work shift and a scan of the work area at end of shift

- Posting of signage at potential high wind locations to remind workers of procedures for securing of materials.

All work shall also be done in accordance with the Occupational Health and Safety Act 2014 Edition.

Further site safety information is available online at www.calgary.ca/constructionsafety

Note: *This Advisory Bulletin is to be distributed by Safety Codes Officers to sites where hoisting operations are in place*