City of Edmonton 3rd Floor, Edmonton Tower 10111 104 Avenue NW Edmonton, AB T5J 0J4

Policy B23-02 WINDOW OPENING CONTROL DEVICES

POLICY

This policy bulletin clarifies the application and use of Window Opening Control Devices within the National Building Code - 2023 Alberta Edition:

Window Opening Control Devices meeting the general requirements of ASTM F2090 are acceptable for use as guards under Division B, Article 9.8.8.1. as well as through STANDATA Variance 23-BCV-001 for Egress Windows, including those under Division B, Article 9.9.9.1.

There is no prohibition of the use of WOCD's on windows, aside from application in adaptable or barrier-free dwelling units as per STANDATA Variance 23-BCV-001.

DISCUSSION

Window Opening Control Devices (WOCD's) were introduced in the National Building Code - 2023 Alberta Edition (NBC(AE)) as a method to comply with guards required for openings under Division B, Clause 9.8.8.1.(4)(b) and Sentence 9.8.8.1.(5). These devices, which are required to be released ". . .with the use of tools or special knowledge. . ." act as guards to address instances of occupants, particularly children, falling from windows.

Article 9.8.8.1. does not mandate specific features of guards or specifically WOCD's, however guidance within the Notes to this article articulate the appropriateness of devices which meet the requirements of ASTM F2090 "Standard Specification for Window Fall Prevention Devices with Emergency Escape (Egress) Release Mechanisms". Other devices such as fall prevention screens, and fall prevention guards may also be used to achieve compliance to this Article.

Contrary to Article 9.8.8.1., Egress Windows, specifically those required under Article 9.9.10.1., are restricted from having any devices which require the ". . .use of keys, tools or special knowledge" which reasonably includes WOCD's. Alberta Municipal Affairs published STANDATA Variance 23-BCV-001 to allow the use of WOCD's within the scope of Article 9.9.10.1.¹ Two implications of this variance are:

- 1. the implication that WOCD's do not rely on "...keys, tools or special knowledge" which is a specific requirement of devices installed as guards under Article 9.8.8.1.
- 2. the process of verification of individual devices required to adhere to ASTM F2090

¹ STANDATA Variance 23-BCV-001, Alberta Municipal Affairs, April 2024 <u>https://open.alberta.ca/dataset/08ac69ae-5639-46a3-83d2-c52246c78621/resource/01b622f0-f4a1-426d-b15f-ff</u> <u>c25e725949/download/ma-standata-variance-building-23-bcv-001-2024-04.pdf</u>

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Article 9.8.8.1. does not specify adherence to ASTM F2090 for the design of WOCD's used as guards, but provides guidance on the functionality and purpose of the devices. Therefore, there is no requirement for individual devices to be certified or listed to verify conformance to ASTM F2090. Similarly, STANDATA 23-BCV-001 does not require WOCD certification/listing, however it does reference compliance to ASTM F2090. Further, ASTM F2090-21 identifies that devices which meet that standard apply to ". . .window fall prevention devices, including [WOCDs]. . .that are to be used on operable windows, including those that are designated for emergency escape (egress) and rescue (ingress)."

Therefore, although individual WOCDs do not need to be certified/listed, they are subject to verification by the Authority Having Jurisdiction to ensure the devices operate as intended. For application of Article 9.8.8.1. and STANDATA 23-BCV-001, this includes the following General Requirements taken from the ASTM F2090-21 Standard:

- 1. The opening of a window sash on which a WOCD is installed shall be restricted to no more than 102 mm (4"), without release of the WOCD's operating mechanism.
- 2. WOCD's shall consist of either two independent single-action mechanisms, or one dual-action mechanism (excluding operation of the window sash)
- 3. WOCD's on Egress Windows as per STANDATA 23-BCV-001 shall have their operating mechanisms readily visible
- 4. Once released, the WOCD shall automatically reset when the window sash is fully closed
- 5. Owner's Safety and Operating information for installed WOCD's shall be available at the time of inspection

CONCLUSION

Window Opening Control Devices meeting the general requirements of ASTM F2090 are acceptable for use as guards under Division B, Article 9.8.8.1. as well as through STANDATA Variance 23-BCV-001 for Egress Windows, including those under Division B, Article 9.9.9.1. There is no prohibition of the use of WOCD's on windows, aside from application in adaptable or barrier-free dwelling units as per STANDATA 23-BCV-001.

WOCD's installed as guards under Division B, Article 9.8.8.1. or devices under STANDATA Variance 23-BCV-001 are subject to inspection by the Authority Having Jurisdiction, according to the General Requirements adapted from the ASTM F2090-21 standard.

Robert McAdam, Director Safety Codes, Permits, and Inspections Development Services