



ROOFING CONTRACTORS
ASSOCIATION OF
BRITISH COLUMBIA



TECHNICAL BULLETIN

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Important Changes to the 2020 NBC

As you may know, the 2020 National Building Code introduced some significant changes for designers and builders. What you may not appreciate is just how impactful some of these have been on key issues around design, design responsibility, and roof construction.

Recently, the Canadian Board for Harmonized Construction Codes (CBHCC) released a series of brief videos highlighting some of the key changes to the NBC. We highlight two of them here, with accompanying notes and links to other references or information you may find useful.

Our own British Columbia Building and Safety Standards Branch also published a bulletin about these videos. As their own note states, the British Columbia Building Code (modelled after the NBC) will include BC-specific variations the reader will have to keep in mind.

For ease of use, here are the current links to the 2020 [National Building Code of Canada](#) and the 2024 [British Columbia Building Code](#).

[Important Changes to Part 4 of the NBC 2020: Structural Design](#) – this video addresses changes to the following subjects that pertain to roof design (for designers and builders):

- Importance Categories
- Rooftop parking
- Snow drifting
- Roof-mounted solar panels
- Parapet design
- Attached canopies
- Wind design data

The video highlights the importance of clearly understanding the intent behind Importance Category classification, making it clear why a registered professional skilled in the work of Division B, Part 4 should undertake the work of wind load calculations (see the RCABC [Technical Bulletin](#) on wind design issued July 1, 2024).

Although the waterproofing of rooftop parking is not included in the **RoofStar Guarantee Program**, designers will be interested to hear about changes included in the 2020 NBC that address the subject of live loads in combination with snow loads.

Similarly, while the **RoofStar Guarantee Program** is not concerned with snow drifting, drift loading can impact the structural design of buildings with multiple roof levels. Furthermore, the structural commentaries for the 2015 NBC provided insufficient guidance for larger roof areas. This has now been corrected with changes to the 2020 NBC.



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New to the 2020 NBC is the introduction of requirements for rooftop-mounted solar panel arrays. These changes address the effects of both wind and snow, and the additional downward structural loads induced by weight and other intervening factors. The 2020 NBC introduces a harmonized method for determining loads, and again highlights the necessity of assigning this structural load calculation work to a registered professional.

The 2020 NBC also addresses wind loads on parapet walls. New provisions in the Code provide designers with a way to calculate wind loads for parapets on low buildings. These changes will have a direct impact on the design of roof assemblies and highlight the importance of ensuring the securement of roofing materials on every aspect of a roof assembly is properly designed and effectively communicated to the builder.

Canopies on buildings may be subject to significant wind loads. The 2020 NBC now provides the structural designer with guidance for wind load design, something that was absent in the 2015 Code. Again, this will have an impact on the design of appropriate roofing system securement, which must be clearly and effectively communicated in both specifications and drawings (see the NBC/BCBC, Division C, Part 2, Administrative Provisions).

Finally, the 2020 NBC provides updated climatic design data. In every code cycle (typically, 5 years) the data in Table C-2 of Appendix C, Division B is reviewed and updated. Updates now include new explanatory notes, together with updated wind pressure data. The registered professional who undertakes the wind load design work in Division B, Part 4 will need to take note of these changes, as they impact the appropriate design of a roof assembly and its ability to resist wind load.

[Important Changes to Parts 5 and 6 of the NBC 2020](#) – this video addresses changes to the following subjects that pertain to roof design (for designers and builders):

- Air leakage
- New material standards
- Outdated and withdrawn standards
- Explanatory notes

The first part of this video focuses on the subject of Environmental Separation (Division B, Part 5) and shifts the focus on air leakage control away from materials and toward assemblies. Because the roof is an assembly that serves to control air leakage on “one side” of the full building enclosure, designers and builders should take note of the changes in requirements that address performance metrics validated through testing.

New material standards have been added to the 2020 NBC, including new standards for gypsum panels (often used in roof assemblies, as well as on walls) and some asphaltic membrane products.

Some standards have been withdrawn from the 2020 NBC and these include the older CGSB standards for the installation of asphalt shingles (now replaced by CSA A123.51); readers will recall that the CGSB standards were referenced in Article 9.26.1.3., Alternative Installation Methods.

Some of the explanatory notes to Part 5 have been amended, and Note A-5.1.4.2., Deterioration, may be of particular interest to roof assembly designers since it addresses the subject of material and assembly service life in relation to climate change. This can have an impact on repairability. For more on the topic of serviceability and roof resilience, see the article “Building Resilience” in [Volume 20, Number 1 of](#)



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Roofing BC. Also see our July 2024 Technical Bulletin on wind design, which includes comments on this very topic (“Each design must be based on an understanding of the service conditions the roof will experience, for its expected service life (British Columbia Building Code, Division A, Article 3.2.1.1., Functional Statement 80). When anyone sets out to design a roof, every aspect of its performance must be thoughtfully considered.¹).

End of Bulletin

¹ Supreme Court of Canada. Steel Company of Canada Ltd. v. Willand Management Ltd., [1966] S.C.R. 746.