



# Techniques for considering high winds and snow drifting and their impact on northern infrastructure



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# Preface

This is the first edition of CSA S505, *Techniques for considering high winds and snow drifting and their impact on northern infrastructure*.

CSA Group received funding for the development of this Standard from the Standards Council of Canada, as part of the Northern Infrastructure Standardization Initiative with input from the Northern Advisory Committee (NAC).

This Standard was prepared by the Subcommittee on High Winds and Snow Drifting for Northern Infrastructure and Climate Change, under the jurisdiction of the Technical Committee on Northern Built Infrastructure and the Strategic Steering Committee on Construction and Civil Infrastructure, and has been formally approved by the Technical Committee.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

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  - a) *Standard designation (number);*
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  - c) *wording of the proposed change; and*
  - d) *rationalization for the change.*

# CSA S505:20

## ***Techniques for considering high winds and snow drifting and their impact on northern infrastructure***

### **1 Scope**

#### **1.1**

##### **1.1.1**

This Standard addresses risks to northern infrastructure due to wind, snow, and snow drifting. It incorporates the following themes, all in the context of Canada's North and climate change:

- a) weather data, climate variables, and relevant projections and forecasts;
- b) reducing risk of damage;
- c) climate adaptation strategies;
- d) improving function and accessibility; and
- e) design construction techniques.

##### **1.1.2**

This Standard provides guidance to northern infrastructure designers, builders, operators, and owners to address the increased risk of damage to the built environment, including the potential effects of climate change (specifically, risks from higher and more frequent wind loads and from associated snow drifting).

#### **1.2**

This Standard does not apply to

- a) uniform snow load on existing roofs (which is covered in CAN/CSA-S502);
- b) decommissioning of buildings subjected to snow or wind overload; or
- c) detailed design of infrastructure.

#### **1.3**

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the Standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.