

# Building Resilience: The role of standards in advancing climate-ready infrastructure

ClimateWest Forum

May 2026



# Standards Council of Canada



We oversee and fund the development of standards



We are Canada's leading accreditation organization



We represent Canada on the world standards and accreditation stage



We drive collaboration through standards development





# Outline

What are standards?



Standards to Support Resilience in Infrastructure Program (SSRIP)



Standards spotlight





# What are standards?



# What is a standard?



- A standard is a document that provides steps for measurement, description, method or design aimed at producing the same quality or results within a specific activity or area of work.



- If used correctly and checked by a third party, standards can help ensure that:
  - A product is safe to use,
  - A person has the right skills for a specific job
  - Infrastructure is soundly built



- A standard is voluntary but can be made mandatory



- Anyone can write a standard (private or industry)
- However, the development of a National Standard of Canada is different



## What makes a National Standard of Canada (NSC)?

- Only SCC-accredited **Standards Development Organizations (SDOs)** can develop a National Standard of Canada. (e.g. CSA Group, BNQ)
- NSCs are developed according to a rigorous, SCC-accredited process underpinned by:
  - Balance of interests (regulators, industry, civil society, academics, etc.)
  - Geographic representation
  - Consensus-based decision-making
  - Transparency and inclusivity
  - Availability in both official languages

# Benefits of NSCs



**Vetted** by a nationally-representative group of experts, representing a balance of interests



**Reduce effort:** can be incorporated into requirements and programs (no need to write from scratch)



Leverage **state-of-the-art knowledge** and expertise

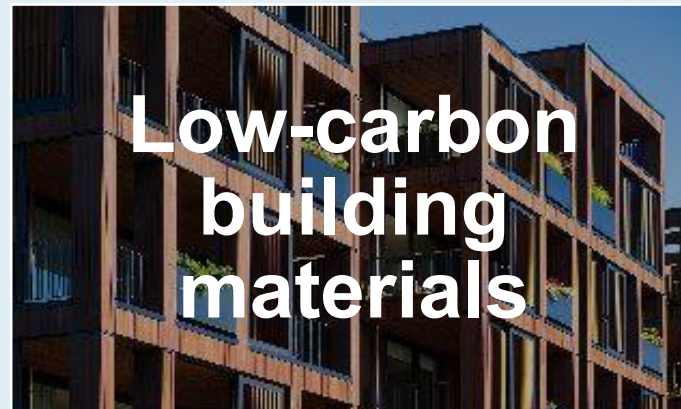


Demonstrate the meeting of **duty of care**

# Standards to Support Resilience in Infrastructure Program (SSRIP)

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Six workstreams:

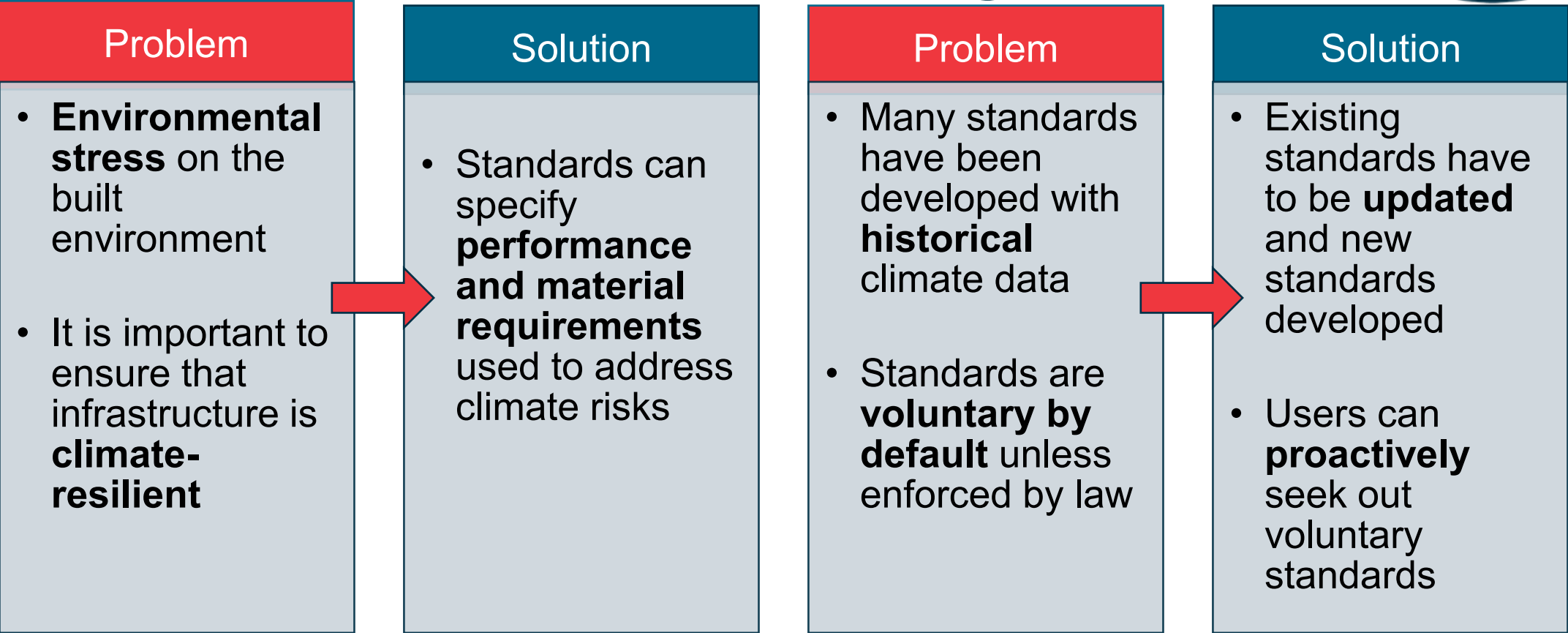




# Standards spotlight



# Standards and climate change





# High Winds

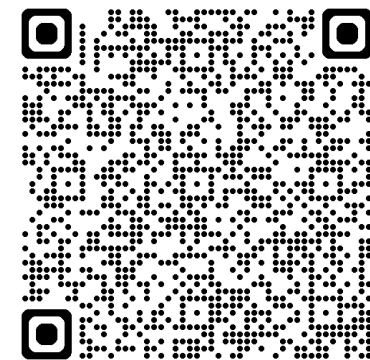
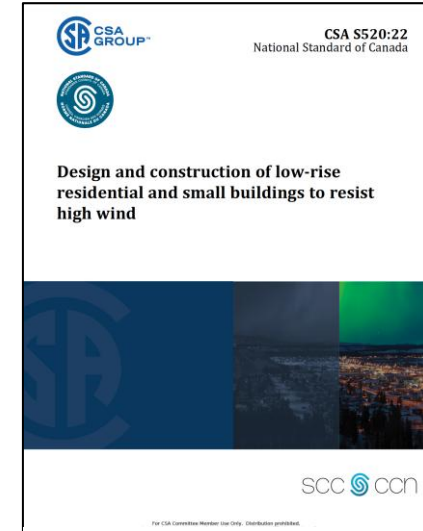
- Many low-rise residential buildings in Canada are prone to damage from high winds and tornados
- The consequences of high winds on buildings include
  - Damaged roofing
  - Shattered windows
  - Structural failure
  - Debris impact
  - Power outages





# High Winds - Solution

- [CSA S520](#) – Design and construction of low-rise residential and small buildings to resist high wind (2022)
- This is intended for small, low-rise (i.e., NBCC Part 9) buildings to:
  - Enhance building integrity with a more resilient design
  - Identify stronger materials and provide installation practices
- Buildings will likely sustain damage, but it will be repairable
- All recommendations are for new construction and parts can be used for major alterations and additions
- This QR code links to an infographic for this standard:



# Extreme Heat: Playgrounds



- Infants and young children are at risk during extreme heat events, especially when there are preexisting conditions like asthma or heart conditions
- Due to the urban heat island (UHI) effect, cities get hotter than nearby rural areas because of existing infrastructure that absorb and retain heat
- [Urban Heat Island Mapping Workshop Report \(Fall 2022\)](#)

# Extreme Heat: Playgrounds - Solution



- The [CSA Z614:20 \(R2025\)](#) standard on Children's playground equipment and surfacing includes guidance on extreme heat
- This guide – [Designing Climate-Ready Playgrounds](#) - contains design ideas that can be integrated into planning processes in conjunction with the CSA Z614:20 standard
- Other SCC resources on Urban Heat can be found here: [Urban Heat | Standards Council of Canada](#)



# Equity Lens to Infrastructure and Climate Change

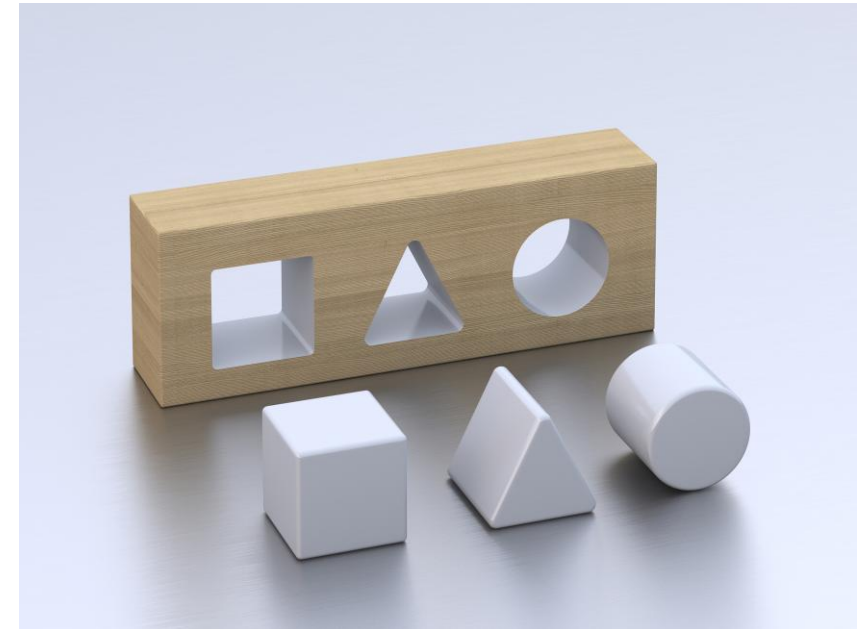
Certain populations are at a higher risk of being impacted by climate hazards:



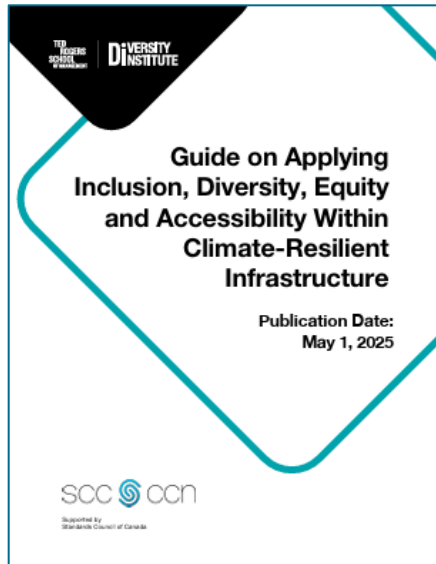


# Benefits of an Equity Lens

- Mitigates legal risks
- Builds resilience, reduces loss and damage, and meets the needs of communities
- Builds trust with communities
- Drives innovation



# Equity Lens to Infrastructure and Climate Change



- This [Guide on applying Inclusion, Diversity, Equity and Accessibility \(IDEA\) within Climate-Resilient Infrastructure](#) gives a framework on incorporating IDEA considerations in infrastructure as it relates to climate resilience
- Benefits of using this guide:
  - Guides your design, value engineering, and construction planning process
  - Gives a starting point
  - Gives you the information on what to consider within your processes



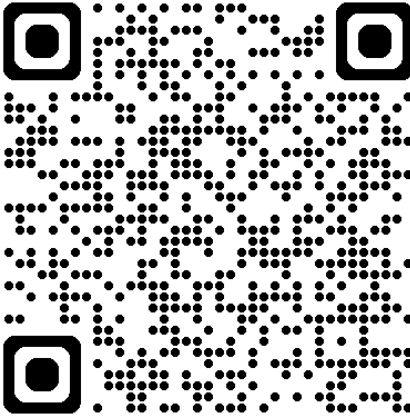
# Other SSRIP projects

- Go to <https://scc-ccn.ca/> for more information



- List of published SSRIP projects can be found at <https://scc-ccn.ca/areas-work/published-projects>

- Or scan the QR code:





# Thank you!

Contact Jessica ([Jessica.Akande@scc.ca](mailto:Jessica.Akande@scc.ca)) for more information and questions.