

Green and Inclusive Community Buildings

Applicant Guide



Infrastructure
Canada

Canada

What is the objective of the Green and Inclusive Community Buildings Program?

The Green and Inclusive Community Buildings (GICB) program is a national merit-based program with the objective of improving the availability and condition of community buildings in Canadian communities experiencing higher needs and who are currently underserved. At the same time, the program will stimulate the economy, create good job opportunities, and align to the goals of Canada's strengthened climate plan. The program will advance the Government's climate priorities by improving energy efficiency, reducing GHG emissions, and enhancing the climate resilience of community buildings.

How does the program work?

The Government of Canada announced up to \$1.5 billion in federal funding over five years to establish the GICB program. The GICB program support retrofits, repairs or upgrades of existing publicly-accessible community buildings and the construction of new publicly-accessible community buildings that serve underserved and high-needs communities across Canada. Community buildings are non-commercial community-oriented structures and spaces that provide open, available, and accessible community services to the public. With this program, the Government of Canada is making investments to improve the availability and condition of community buildings – in particular in areas with populations experiencing higher needs – while also making the buildings more energy efficient, lower carbon, resilient, and high performing.

The program focuses on publicly accessible community buildings with a recognition that these structures and spaces are at the heart of community vitality: they are the places where Canadians gather, access essential services, and learn and play. The quality, availability and location of these spaces – along with the services that they sustain – plays a meaningful role in fostering inclusion in society and combating systemic inequities.

How does this program fit in with Canada's fight against climate change?

The GICB program is part of Canada's strengthened climate plan, which was introduced in December 2020 as the *Healthy Environment and a Healthy Economy*. The program will support the first pillar of the plan by improving the places where Canadians live and gather – which will cut pollution, make life more affordable and create thousands of good jobs in construction.

Funding through this program will build and adapt community buildings to reduce carbon emissions, advance best practices in reduce greenhouse gas (GHG) mitigation measures, foster awareness and alignment to green building standards nationally and internationally, and encourage best practices in building design for climate change resilience. Investments in the repair and construction of community

buildings will generate employment and community development opportunities, helping communities to recover from the economic impacts of COVID-19.

Who can apply to the GICB Program?

Funding under the GICB program will be provided directly by Infrastructure Canada to recipients at the local community level. Eligible applicants include:

- A municipal or regional government established by or under provincial or territorial statute;
- A provincial or territorial government;
- A public sector body that is established by or under provincial or territorial statute or by regulation or is wholly-owned by a province, territory, municipal or regional government, including, but not limited to:
 - Municipally-owned corporations (e.g. autonomous organizations owned by municipalities, used to produce or deliver local public services outside the local bureaucracy, such as water management, economic development or tourism agencies);
 - A provincial or territorial organization that delivers municipal services (e.g. community health services,); and
 - Any other form of local governance that exists outside of the municipality description (e.g. local service districts);
- Federally or provincially incorporated not-for-profit organizations and registered charities;
- Indigenous recipients:
 - Indigenous Governing Body, including the following:
 - A band council within the meaning of section 2 of the Indian Act;
 - A First Nation, Inuit or Métis government or authority established pursuant to a Self-Government Agreement or a Comprehensive Land Claim Agreement between Her Majesty the Queen in right of Canada and an Indigenous people of Canada, that has been approved, given effect and declared valid by federal legislation;
 - A First Nation, Inuit or Métis government that are established by or under legislation whether federal or provincial that incorporates a governance structure;
 - A federally or provincially incorporated not-for-profit organization whose primary mandate is to serve Indigenous peoples (e.g. Friendship centres, aboriginal women's associations); and
 - Not-for-profit Indigenous development corporations.

Ineligible applicants include but are not limited to:

- Commercial and for-profit organizations, including cooperatives
- Individuals and private citizens
- Federal entities, including federal Crown corporations

To be considered eligible for funding, applicants must demonstrate that they have the required authority to undertake the project on the building/asset or land.

What kinds of projects are eligible for funding?

The GICB program will fund two types of projects:

- **Retrofits, repairs and upgrades to existing community buildings.** Retrofits are changes to an existing building/asset that seek to renovate, upgrade, or repair aspects of the building/asset in a manner that improves environmental outcomes. Retrofits must be to a facility that is accessible to the public and that will provide non-commercial services to the community. For a detailed description of retrofit projects and their conditions for eligibility, please see the section entitled “Retrofits - Applying for funding for retrofits, repairs and upgrades to existing buildings” on page 7.
- **The construction of new community buildings.** New builds must be of a building/asset that is open and accessible to the public and that will provide non-commercial services to the community. For a detailed description of new build projects and their conditions for eligibility, please see the section entitled “New builds - Applying for funding for the construction of new community buildings” on page 12.

To be eligible for funding, retrofitted and new buildings must be in areas with underserved populations experiencing higher needs and be the site of programming and/or activities that demonstrably serve these populations.

How much funding is available?

Up to \$860 million is available for **retrofit projects** across Canada.

- **Small retrofit projects** are those that range in size from \$100,000 to \$249,999 in total eligible costs.
- **Medium retrofit projects** are those that range in size from \$250,000 to \$2,999,999 in total eligible costs.
- **Large retrofit projects** are those that range in size from \$3,000,000 to \$25,000,000* in total eligible costs.

More than \$430 million is available for the construction of new buildings across Canada.

- **New build projects** are those that range in size from \$3,000,000 to \$25,000,000 in total eligible costs.

A minimum of \$150 million will be allocated on a distinctions-basis to Indigenous projects being led by and for Indigenous populations and communities. Indigenous applicants are invited to apply through the process described above for projects of all types and sizes.

How do I apply?

The process is divided into two main types: a **continuous, non-competitive intake**, and **scheduled, competitive intakes**.

Indigenous applicants are invited to apply to all intakes.

Applications will be accepted online on an ongoing basis through Infrastructure Canada's online and accessible application portal. Applicants who are unable to apply through the portal are asked to reach out to the GICB program team at infc.gicbp-pbcvi.infc@canada.ca.

There are no limits to the number of applications that can be submitted by an eligible applicant.

There is no ceiling to the amount of funding available to an eligible applicant.

Eligible applicants may submit a separate application for each project they wish to have considered for funding. In the case of multiple applications from a single applicant, applicants are asked to provide ranking information regarding the priority of each project. Please note that Infrastructure Canada reserves the right to direct large funding requests and/or multiple applications from a single applicant to alternative funding sources and opportunities, for consideration. In these cases, applicants will be contacted and informed of these actions.

Continuous intake stream

Applicants with **small and medium retrofit projects** to existing community buildings ranging in total eligible cost from \$100,000 to \$2,999,999 will be accepted on a continuous basis. Applications for the continuous intake stream will be accepted until total funding for this stream has been fully allocated.

Selection of projects for funding will be based on eligibility criteria and the achievement of a minimum merit threshold. For more details on eligibility and merit criteria for the continuous intake stream, please see the section entitled "How will my application for retrofit funding be evaluated?" on page 10.

How is the size of my project determined?

The size of a project is based on total eligible costs. This figure is lower than total project costs because certain expenses will not be reimbursed by Infrastructure Canada (e.g., land, lease of building, staff salaries, maintenance and operations, etc.).

*Please refer to the sections entitled **What costs are eligible?** and **What costs are ineligible?** on page 17 to determine the federal contribution for your project and the balance of funds your organization will need to secure for your project.*

*The maximum federal contribution amount approved is described in the section entitled **How much of my costs will this program cover?** on page 15. Any cost increases or overruns for the project will be the responsibility of funding recipients.*

Scheduled intake stream

Applicants with **large retrofit projects** to existing community buildings or **new community building projects** with total eligible costs ranging from \$3 million to \$25 million will be accepted through a scheduled, competitive intake process.

Selection of projects for funding will be based on eligibility criteria and the competitive evaluation of applications using merit criteria. For more details on eligibility and merit criteria for the scheduled intake streams, please see the sections entitled “How will my application for retrofit funding be evaluated?” on page 11 and “How will my application for funding for a new building project be evaluated?” on page 15.

What are the minimum requirements?

The following are required for projects of all types, sizes and streams:

- The building/asset must be a non-commercial community-oriented structure or space that provides open, available, and publicly-accessible community services
- The building/asset must be located in an area with underserved populations experiencing higher needs and be the site of the publicly-accessible programming and/or activities that demonstrably serve these populations
- The building/asset must be an eligible asset type
- The applicant must have authority over the building/asset either as the owner or have secured an agreement with the asset owner to carry out the project
- The project must be implemented no earlier than April 1st, 2021, and no later than March 31st, 2026
- The applicant must submit their buildings structural information, energy profile, and GHG emissions using the RETScreen® Expert software
- The project must not lead to an increase in the building’s operational GHG emissions (retrofits only)
- Impacts of climate change have been assessed and considered for the project
- The applicant must commit to securing the necessary capital to proceed if approved for federal funding
- The applicant must provide all necessary data and supporting documents
- The applicant must attest to the manner in which the project will meet relevant building and construction laws and regulations, including completion (or planned completion) of environmental assessment and consultation as may be required by federal and provincial/territorial governments.
- The applicant must attest to the manner in which the project will align to the building standards and codes that apply to the jurisdiction of the existing building and, as applicable, those set out in the section entitled “What are the required construction standards for new buildings?” on page 14.
- Retrofit projects that intend to improve accessibility, as well as all new builds, must meet or exceed the highest published accessibility standard as defined by the requirements in the [Canadian Standards Association's Technical Standard Accessible Design for the Built Environment \(CAN/CSA B651-18\)](#), or the most recent standard, in addition to provincial or territorial building codes, and relevant municipal by-laws.

What are the specific application requirements?

Retrofits - Applying for funding for retrofits, repairs and upgrades to existing buildings

What kinds of buildings can be retrofitted?

The GICB program will provide funding towards retrofits, repairs, and upgrades to the space of a community building that is accessible to the public and is providing a community service.

Retrofits can be small, medium, or large, as defined by project cost and as described in the section entitled “How much funding is available?” on page 4. An expansion or addition of 30% or greater of an existing building’s floor space is considered a new build project. Projects involving the demolition of over 30% of an existing building’s floor space are also considered new build projects. Projects that demolish up to 30% of an existing building's floor space and reconstruct/renovate/rebuild up to 30% of the building's baseline floor space are considered retrofit projects.

The following community buildings/assets are eligible for retrofit projects:

- Community, culture and recreation facilities (e.g. community centres; public sports and recreation facilities; cultural buildings; child and youth centres; community adult learning centres; seniors activity centres)
- Mobile community structures (e.g. mobile libraries, health clinics, youth service facilities)
- Community health and wellness facilities (e.g. food safety and security, community food storage facilities, greenhouses, and food banks; community health centres; addiction and mental health centres; rehabilitation centres, etc.)
- Indigenous health and social infrastructure facilities (e.g. community health centres, clinics, paramedic facilities, long-term care facilities/elders lodges, family violence and homeless shelters)
- Indigenous education facilities (e.g. schools, universities and colleges, adult learning centres; early childhood and daycares)

To be considered eligible, applicants must demonstrate they have the required authority over the building/asset to undertake the project. This will be confirmed through proof of ownership or through a declaration or written authority that the applicant has permission from the owner to undertake project.

All retrofit projects must be planned to be completed within the timeframe between April 1, 2021 and March 31, 2026.

What kinds of buildings cannot be retrofitted?

The GICB program will not fund facilities that are not serving substantially similar functions as those identified as eligible assets, including among others:

- Administrative buildings

- Hospitals, police, fire, paramedic/ambulatory stations, long-term care facilities (except Indigenous facilities specified as eligible)
- Daycare centres (except Indigenous facilities specified as eligible)
- Shelters (except Indigenous facilities specified as eligible)
- Religious facilities (Places of worship and associated facilities)
- Multi-unit housing and hospices
- Schools and post-secondary facilities, including their recreational facilities (except Indigenous facilities specified as eligible)
- Projects to be undertaken on a federally-owned building

Table 1: Eligible buildings and asset types: Retrofits			
Community, Culture and Recreation Facilities	Mobile Community Structures	Community Health and Wellness Facilities	Indigenous Projects only
<ul style="list-style-type: none"> • Community centres • Public sports and recreational facilities • Cultural buildings • Child and youth centres • Community adult learning centres • Seniors' activity centres 	<ul style="list-style-type: none"> • Mobile health clinics • Mobile libraries • Mobile youth service facilities 	<ul style="list-style-type: none"> • Community health centres • Addiction and mental health centres • Rehabilitation centres • Seniors' centres • Food safety/security: Community food storage facilities/food banks, community greenhouses 	<p><i>In addition to the other eligible building and asset types, the following:</i></p> <p><i>Indigenous health and social infrastructure facilities, including:</i></p> <ul style="list-style-type: none"> • Community health centres • Clinics • Paramedic facilities • Long-term care facilities/Elders' lodges • Family violence and homeless shelters <p><i>Indigenous education facilities, including</i></p> <ul style="list-style-type: none"> • Schools • Universities & colleges • Early childhood/Daycare • Adult learning centres

What types of retrofit measures are eligible?

Eligible retrofits must include **green** retrofit measures, and where applicable must include measures that increase the overall **accessibility and/or safety** of the building.

Green retrofit measures and requirements

Green retrofit measures are those that renovate, upgrade, and/or repair aspects of a physical building in a way that improves environmental outcomes.

In order to be score more favourably, all retrofit projects are encouraged to achieve at least 25% in energy efficiency improvements compared to the building's baseline energy consumption. Projects with greater energy efficiency improvements will receive a higher score and are more likely to be selected for

funding. In select cases, projects with lower energy efficiency improvements could be considered and selected for funding.

Projects that demonstrate the ability to achieve greater GHG emission reductions relative to the buildings baseline will receive a higher score, including reductions in carbon dioxide emitted during the manufacture, transport and construction of building materials together with end-of-life emissions.

Table 2 – Examples of green retrofits can include but are not limited to:

Table 2: Eligible Green Retrofit Measures	
Examples of minor retrofits could include:	Examples of major retrofits could include:
<ul style="list-style-type: none"> • Sealing with caulking or spray foam • Adding insulation • Upgrading lighting systems 	<ul style="list-style-type: none"> • Replacing window glazing • Updating low-flow faucets with sensors and automatic shut-offs • Installing sub-metering • HVAC upgrades • Implementation of new operating mechanisms such as: <ul style="list-style-type: none"> ○ An energy management system ○ Building automation system ○ Sensors ○ Control equipment ○ Metering equipment • Related communication systems to support above renovations
<p>Other examples of retrofits can include but are not limited to:</p> <ul style="list-style-type: none"> • Significant reconfigurations to the interior for the purpose of energy savings • Roof replacement • Climate resilience retrofits • Adding or rearranging windows to increase interior sunlight • Renewable energy retrofits • Solar PV array • Wind turbines • Geothermal exchange systems 	

Applicants are also encouraged to consider including retrofit measures that will increase the resilience of the building to climate change impacts. For example, projects located in a high wind area might consider using wind resistant material or design, and projects located in areas with high risks of flooding may consider flood-resilience design elements.

Accessibility and/or safety retrofit measures and requirements

Retrofit measures that increase an eligible building’s accessibility and/or safety are eligible under the GICB program, as long as the project also meets the program’s green retrofit measures criteria (e.g., ambitious energy efficiency improvements).

Accessibility measures within retrofits or renovations can include, but are not limited to the following:

- Wheelchair ramps for accessibility
- Visual fire safety devices
- Firm, slip resistant floor finishes, with no glare or busy patterns

- Widened doorways
- Washroom renovations for wheelchair access
- Automated doorways
- Tactile walking surface indicators
- Installing screen readers
- Assistive listening and communication enhancement technologies
- Constructing a universally designed office
- Smooth, ground level entrances without stairs
- Surface textures that require low force to traverse on level, less than 5 pounds force per 120 pounds rolling force
- Single-hand operation with closed fist for operable components including fire alarm pull stations
- Auditory output redundant with information on visual displays
- Visual output redundant with information in auditory output
- Choice of language on speech output
- Ramp access in swimming pools
- Instruction that presents material both orally and visually
- Labels in large print and/or braille on equipment control buttons

Retrofit projects that impact or intend to include improved accessibility measures must meet or exceed the requirement of the highest published accessibility standard in the jurisdiction, defined as the requirements in the Canadian Standards Association’s *Accessible Design for the Built Environment (CAN/CSA B651-18)*, or the most recent standard, in addition to applicable provincial or territorial building codes, and relevant municipal by-laws.

What kinds of retrofit measures are ineligible?

The following measures and activities are ineligible under the GICB program. Infrastructure Canada will assess each application to confirm whether proposed project measures and activities are eligible.

- Electricity and/or energy production, transmission, and distribution
 - Electricity production for sale on the market
 - Transmission and distribution infrastructure (district energy)
- Low-emission fuels
 - Fuel transportation infrastructure
 - Production of low emissions fuels for sale on the market
- Research, Development and Demonstration (RD&D)
 - Any RD&D projects aimed at demonstrating the effectiveness of a product of technology used as part of the project must conclude prior to the application. Any concurrent RD&D activities cannot be included in the project scope and costs. Exceptions may be given to certain technologies at the discretion of INFC.

How will my application for retrofit funding be evaluated?

Continuous intake (Small and medium retrofits)

Retrofit projects with total eligible project costs between \$100,000 and \$2,999,999 will be evaluated on a continuous basis, with projects needing to meet or exceed a minimum point threshold in order to be granted funding. Assuming your project meets all mandatory eligibility criteria, these retrofit projects will be evaluated on the following criteria:

Construction start date: Projects that begin sooner will receive a higher score.

Located in and demonstrates the ability to serve one or more communities with high needs: Projects that provide greater benefits to high need communities will receive a higher score.

Increased accessibility: Where applicable, projects that demonstrate an intention to exceed (rather than meet) the highest standards for accessibility will receive a higher score.

GHG Reductions: Projects that demonstrate the ability to achieve greater GHG emission reductions relative to the buildings baseline will receive a higher score.

Energy Savings: Projects that will achieve at least 25% in energy efficiency improvements compared to the building's baseline energy consumption, as calculated with the RETScreen® Expert software, will receive a higher score and are more likely to be selected for funding. In select cases, projects with lower energy efficiency improvements could be considered and selected for funding.

Climate resiliency and best practices adoption: Projects that demonstrate strong climate resiliency considerations and measures will receive a higher score. Projects that provide reasonable and accurate detail for why climate resiliency is not relevant to their project will not be subject to this criterion and will be assessed relative to other project merits.

Confidence in delivery/risk: Projects that demonstrate strong risk assessment and mitigation measures will receive a higher score.

Scheduled intake (Large retrofits)

Retrofit projects with total eligible project costs between \$3,000,000 and \$25,000,000 will be evaluated on a competitive basis, with projects being scored and ranked against one another. Assuming your project meets all mandatory eligibility criteria, these retrofit projects will be evaluated on the following criteria:

Construction start date: Projects that begin sooner will receive a higher score.

Located in and demonstrates the ability to serve one or more communities with high needs: Projects that provide greater benefits to high need communities will receive a higher score.

Increased accessibility: Projects that demonstrate an intention to exceed (rather than meet) the highest standards for accessibility will receive a higher score.

GHG Reductions: Projects that demonstrate the ability to achieve greater GHG emission reductions relative to the building's baseline will receive a higher score.

Energy Savings: Projects that will achieve at least 25% in energy efficiency improvements compared to the building's baseline energy consumption, as calculated with the RETScreen® Expert software, will receive a higher score and are more likely to be selected for funding. In select cases, projects with lower energy efficiency improvements could be considered and selected for funding.

Climate resiliency and best practices adoption: Projects that demonstrate strong climate resiliency considerations and measures will receive a higher score. Projects that provide reasonable and accurate rationale for why climate resiliency is not relevant to their project will not be subject to this criterion and will be assessed relative to other project merits.

Confidence in delivery/risk: Projects that demonstrate a strong risk assessment and mitigation measures will be scored higher.

New builds - Applying for funding for the construction of new community buildings

The construction of new community buildings is eligible under the GICB program in cases where construction will fill a missing, or distinct gap in a service requirement of high needs communities where critical community infrastructure is lacking.

What kinds of buildings can be newly constructed?

Eligible new buildings construction projects must be facilities that are accessible to the public and that provide a community service. They include the following:

- Community, culture and recreation facilities (e.g. community centres; public sports and recreation facilities; cultural buildings; child and youth centres; community adult learning centres; seniors activity centres)
- Mobile community structures (e.g. mobile libraries, health clinics, youth service facilities)
- Indigenous health and social infrastructure facilities (e.g. community health centres, clinics, paramedic facilities, long-term care facilities/elders lodges, family violence and homeless shelters)
- Indigenous education facilities (e.g. schools, universities and colleges, adult learning centres; early childhood and daycares)

Table 3: Eligible buildings and asset types: New Community Buildings		
Community, Culture and Recreation Facilities	Mobile Community Structures	Indigenous only
<ul style="list-style-type: none"> • Community centres • Public sports and recreational facilities • Cultural buildings • Child and youth centres • Adult community learning centres • Seniors' centres 	<ul style="list-style-type: none"> • Mobile health clinics • Mobile libraries • Mobile youth service facilities 	<p>Indigenous health and social infrastructure facilities, including:</p> <ul style="list-style-type: none"> • Community health centres • Clinics • Paramedic facilities • Long-term care/Elders' lodges • Family violence and homeless shelters <p>Indigenous education facilities, including:</p> <ul style="list-style-type: none"> • Schools • Universities and colleges • Early childhood/Daycare • Adult learning centres

Applicants from Indigenous, rural, or remote communities can be considered for exceptions to certain specific program requirements when submitting applications for new construction. The eligibility for these specific exemptions and the associated alternative program requirements are outlined in the sections below.

To be considered eligible, applicants must demonstrate they have the required authority over the building/asset/land to undertake the project. This will be confirmed through proof of ownership or through a declaration or written authority that the applicant has permission from the owner to undertake project.

All new building projects must be planned to be completed within the timeframe between April 1, 2021 and March 31, 2026.

What types of new buildings are ineligible?

GICB program will not fund facilities that are not serving substantially similar functions as those identified as eligible assets, including among others:

- Administrative buildings
- Hospitals, police, fire, paramedic/ambulatory stations, long-term care facilities (except Indigenous facilities specified as eligible)
- Daycare centres as designated by Provincial and Territories (except Indigenous facilities specified as eligible)
- Shelters (except Indigenous facilities specified as eligible)
- Religious facilities (Places of worship and associated facilities)
- Multi-unit housing and hospices
- Schools and post-secondary facilities, including their recreational facilities (except Indigenous facilities specified as eligible)
- Community health and wellness facilities (e.g., Community health centres, community greenhouses, etc.) (except Indigenous facilities specified as eligible)

- Projects to be undertaken on a federally-owned building

What are the required construction standards for new buildings?

New construction projects will be required to meet the following minimum standards:

Built to be net-zero carbon

- A net-zero carbon building means a highly energy efficient building that produces onsite, or procures, carbon-free renewable energy or high-quality carbon offsets in an amount sufficient to offset the annual carbon emissions associated with building materials and operation without the need for a transition plan.
- Consult the Zero Carbon Building Design Standard V2 established by the Canada Green Building Council for more information.

OR

Built to be net-zero-carbon-ready

- A net-zero-carbon-ready building is one that has been designed and built to a level of performance such that in accordance with a transition plan it will, i.e. with the addition of solar panels or other renewable energy technologies, achieve net-zero performance in carbon emissions.
- Consult the Zero Carbon Building Design Standard V2 established by the Canada Green Building Council for more information.

OR

Be exempt from net-zero-carbon and net-zero-carbon-ready and built to the highest standard

- Applicants from remote and/or Northern communities, (including all communities in the territories and typically climate Zone 8 - communities with more than 7000 Heating Degree Days, as identified in the 2017 National Energy Code of Canada for Buildings) may seek an exemption to the net-zero requirement for new builds if the project is in a location where standards cannot be met due to geographical or logistical constraints. In cases where an applicant has provided justification that is acceptable to Infrastructure Canada as to why they are unable to construct a new building to the specifications listed above, their new building must be built to a 'high efficiency standard,' that will allow the building's energy performance to exceed the [2017 National Energy Code of Canada for Buildings](#), or the provincial or territorial code (where the project site is located), whichever code is the higher standard.

What other criteria does my new building project need to meet?

Climate resiliency

To be eligible for funding, new building projects must demonstrate they have conducted a climate risk assessment and identify measures mitigating all medium and high risks. For instance, new buildings in areas prone to flooding or wildfires, should take into account the effects these events can have on the building and should include resiliency measures in their building's design to mitigate the risks that these events will pose to the building and to the community.

Accessibility

All new construction projects must meet or exceed the requirement of the highest published accessibility standard in the jurisdiction, defined as the requirements in the [Canadian Standards Association's Accessible Design for the Built Environment \(CAN/CSA B651- 18\)](#), or the most recent standard, in addition to applicable provincial or territorial building codes, and relevant municipal by-laws.

How will my application for funding for a new building project be evaluated?

All new build projects will be evaluated on a competitive basis, with projects being scored and ranked against one another.

Assuming your project meets all mandatory eligibility criteria, new building projects will be evaluated on the following criteria:

Construction start date: Projects that begin sooner will be scored higher.

Located in and demonstrates the ability to serve one or more communities with high needs: Projects that provide greater benefits to high needs communities will receive a higher score.

Increased accessibility. Projects that demonstrate an intention to exceed (rather than meet) the highest standards for accessibility will receive a higher score.

Zero carbon design standard: Projects that are designed to meet net-zero carbon performance without the need for a transition plan will be scored higher. Projects that are exempted from this standard will not be subject to this criterion and will be assessed relative to other project design merits.

Climate resiliency and best practices adoption: Projects that demonstrate strong climate resiliency considerations and measures will be scored higher. Projects that provide reasonable and accurate detail for why climate resiliency is not relevant to their project will not be subject to this criterion and will be assessed relative to other project merits.

Confidence in delivery/risk: Projects that demonstrate a strong risk assessment and mitigation measures will be scored higher.

ADDITIONAL INFORMATION

How much of my costs will this program cover?

The GICB program will provide funding up to the following limits, of total eligible project costs:

Table 4: Project cost share, by project type and size		
Total Eligible Project Cost	General program (up to % max from program)	In the territories and for Indigenous* communities (up to % max from program**)
Retrofits up to \$9,999,999	80%	100%
Retrofits costs \$10,000,000 +	60%	100%
New builds up to first \$9,999,999 of costs	60%	100%
New build costs \$10,000,000 +	50%	100%

**All Indigenous eligible recipients as defined in the terms and conditions of this program are eligible for up to 100% federal stacking.*

The maximum amount permitted from all Government of Canada sources is 100% of eligible costs.

The maximum amount permitted from Canadian governments combined (including municipal, provincial and territorial) is 100% of eligible costs.

Note: The application of the maximum level of funding provided by the program towards eligible costs will be implemented on a marginal dollar value basis whereby the total eligible project costs up to the first \$9,999,999 will have the higher maximum % funding rate applied and for every dollar above \$10,000,000 the lower % rate applied. For example: a retrofit project with \$12,000,000 in eligible costs would be provided a maximum of $\$9,999,999 \times .80 + \$2,000,001 \times .60 = (\$7,999,999.20) + (\$1,200,000.60) = \$9,199,999.80$ in funding from GICB towards eligible costs.

When will I know if I my project has been selected for funding?

Applicants will be able to track the status of their application using the online application portal (see Annex A). Once a decision has been made on project funding, Infrastructure Canada will notify successful and unsuccessful applicants of the outcome of the process. If a project is approved for funding, Infrastructure Canada will contact the project's primary contact and indicate next steps for moving forward with a funding agreement. This notification does not necessarily guarantee that federal funding will be provided. Funding may be subject to certain conditions, such as the completion of an environmental impact assessment, regulatory authorization/permits, or consultations with Indigenous Peoples.

How will I receive funding – as a grant or as a contribution?

Funding amounts will be determined based on an assessment of the recipient's planned activities and budget submission, previous financial performance and capacity of the recipient to achieve results.

The type of funding received (grant or contribution) will be determined based on the type of project and the amount of funds being requested.

In general, funding will be provided as grants for small retrofit projects seeking \$100,000 to \$249,999. In some cases, retrofit projects under \$250,000 may be funded through contribution agreements.

Funding will be provided as contributions for all projects above \$250,000.

What is the maximum amount payable under this program?

The maximum amount allocated to any **retrofit** project under this program will be \$250,000 in grant funding and \$25 million in contribution funding.

Larger retrofits and new build projects (above \$25 million in total eligible costs) may also be considered in cases where the federal investment can be effectively delivered by March 31, 2026, either to complete the project or bring the project to a next phase of funding for completion where the investments are secured.

What costs are eligible?

Eligible costs are those considered by Infrastructure Canada to be direct and necessary for the successful implementation of an eligible project. Eligible expenditures for both grant funding and contribution funding under the GICB program are as follows:

- costs that are incurred between April 1, 2021, and March 31, 2026
- costs to build, renovate, expand or improve fixed capital assets and community buildings;
- fees paid to professionals, technical personnel, consultants and contractors specifically engaged for the purpose of the renovation, expansion or improvement work or new builds of eligible infrastructure, including planning and energy audit costs;
- costs of environmental assessments, monitoring and follow up activities as required by the Impact Assessment Act or equivalent legislation;
- costs associated with a public announcement and official ceremony or of required temporary or permanent signage that includes the cost of creation and posting of signage;
- costs for the purpose of Aboriginal consultation/engagement activities;
- other costs that are considered to be direct and necessary for the successful implementation of the project and that are approved in advance by Canada;
- salaries, wages and other incremental costs (i.e. materials or equipment) of the recipient provided that:
 - the recipient confirms and substantiates that it is not economically feasible to tender a contract;
 - the costs are incurred and directly in respect to the work that would have been subject of the contract; and
 - costs are approved in advance and are included (in a contribution agreement).

Applicable to Indigenous and not-for-profit recipients only:

- legal fees (excluding those related to litigation) up to the amount specifically identified within contribution agreement.

What costs are ineligible?

Ineligible costs include:

- project costs incurred prior to April 1, 2021, or after March 31, 2026 and all expenditures related to a contract signed prior to April 1, 2021;
- services or work that is normally provided by the recipient or a related party;
- salaries and other employment benefits of any employees of the recipient except as outlined above in Eligible Project Expenditures;
- in-kind contributions (goods or services);
- taxes, such as GST and HST, for which the recipient is eligible for a tax rebate and all other costs eligible for rebates;
- cost of leasing of equipment by the recipient except for as indicated in eligible costs above;
- legal fees (except as specifically indicated as eligible for Indigenous non-government and not-for-profit recipients);
- purchase or lease of real property (land or building), or any interest therein, and related costs;
- collateral on mortgage financing and payment of interest charges;
- structural renovations not specific to the project;
- costs related to marketing activities and business promotion;
- costs for activities intended to directly influence/lobby governments;
- travel costs;
- operations and maintenance costs; and
- other costs not specifically related for the project.

How will I be reimbursed for eligible project costs?

Contributions

Eligible project costs can be reimbursed to the recipient if a contribution agreement is signed by INFC and the recipient, and once all application payment conditions have been met.

Under a contribution agreement, costs must first be incurred by the recipient, and if deemed eligible, will then be reimbursed at the prescribed percentage of the federal contribution.

Grants

Funding will be provided at the signature of the grant agreement between INFC and the recipient. Infrastructure Canada reserves the right to hold back a portion of grant funding to be released once all reporting conditions have been met.

RETScreen® software requirements

All **retrofit** projects applying for funding under the GICB program will be required to submit their buildings structural information, energy profile, and GHG emissions using the RETScreen® Expert software. The software is free to download and works as a comprehensive 'decision support tool' developed by Natural Resources Canada for energy efficiency, renewable energy and cogeneration project feasibility analysis as well as ongoing energy performance analysis.

Applicants are required to enter information regarding their building and project into RETScreen® including: site location, building characteristics, current energy consumption, proposed measures, project costs, etc. The completed RETScreen® Assessment will provide an overview of your building's current energy consumption, fuel use, and GHG emissions, as well as the estimated energy savings and costs, GHG emissions reductions, financial viability and risk analysis of your proposed project.

New build projects may create a RETScreen® profile for their building(s) as well, but it is not required.

For more information, please visit the [RETScreen® Capacity Building Page](#).

Environmental assessment

Depending on where your project is located, you may be required to complete an environmental impact assessment(s) prior to undertaking certain activities. Applicants are responsible for determining whether their project may require an environmental impact assessment under the federal *Impact Assessment Act*, and ensuring the assessment is completed. If you are unsure of your responsibilities, please consult your provincial/territorial government and the [website](#) on the basics of the federal environmental impact assessment.

Duty to consult

The Government of Canada may have a legal duty to consult with, and if applicable, accommodate, Indigenous Peoples when it contemplates conduct that might adversely impact Indigenous or treaty rights. These rights include, but are not limited to, the right to hunt, fish, and practice traditional activities and ceremonies. Infrastructure Canada will assess potential impacts of projects on these constitutionally protected Indigenous and treaty rights to ensure that those affected are properly notified, consulted and, where required, accommodated.

While the duty to consult is an obligation that rests with the Crown, the Government of Canada will expect funding recipients under the GICB program to carry out certain procedural aspects of consultation on a proposed project, where appropriate (e.g. providing notification letters to, and organizing consultation sessions with, Indigenous communities that will be affected by the proposed project).

Reporting and audit requirements

All recipients of grant funding and contribution funding must provide reports to Infrastructure Canada. The terms of reporting requirements will be set out in project funding agreements. These may include any of the following: annual and final reports, status and progress updates, financial reports and evaluation reports.

Annual and final reports will include, at minimum, information regarding the implementation progress of the retrofit or new building project and details of project funding and their management.

Recipients undertaking projects with total eligible project costs of \$10,000,000 and above will be required to report on Community Employment Benefits (CEB) to provide public reporting on the employment and procurement opportunities achieved with a range of target groups (e.g., apprentices, Indigenous peoples, women, persons with disabilities, veterans, youth, recent immigrants, small-sized, medium-sized and social enterprises) as detailed in the [CEB Guidance](#). The framework for CEB has been designed to encourage recipients to consider measures to increase access for specified groups to employment through their projects while ensuring compliance with all trade obligations. Recipients with projects below this threshold are also invited to report on these targets, but are not required to do so.

Reports on progress toward climate-focused objectives can be created through the RETScreen® Expert software by inputting the building's new energy consumption information into the building's profile. At minimum, the report should include the building's net energy savings and net GHG emission reductions. For more information on how to generate the report using RETScreen® Expert, please consult Annex A.

Exact requirements regarding eligibility to hire an external third party to conduct reporting on behalf of the recipient(s) will be included in the contribution agreements with recipients.

INFC will monitor approved projects to ensure that funds are used in accordance with the terms and conditions of the grant or contribution agreement.

Recipients may be required to conduct and submit one audit over the course of the contribution agreement, carried out by an independent third party. INFC will reserve the right to review and audit recipients as deemed necessary.

Endorsement

In order for Infrastructure Canada to provide funding, projects must be duly authorized or endorsed by a resolution of Council, Band or Board of Directors, as applicable. The resolution must be received before a grant or contribution agreement can be executed.

Disposal of assets

If at any time within six (6) years from the date of completion of the project, the recipient of project funding under the GICB program sells, leases, encumbers or otherwise disposes of, directly or indirectly, any asset funded, in whole or in part, with the financial assistance contributed under the terms of the

program, the recipient will have the responsibility to inform Infrastructure Canada and the recipient may be required, at Infrastructure Canada's discretion, to repay the federal government contribution in full or in part. Grant agreements and contribution agreements will include clauses on the disposal of asset period.

Privacy and Confidentiality

The information provided by an applicant in their application and under any other form will be used by the Government of Canada for the review, evaluation and selection of applications under the Green and Inclusive Community Buildings Program, that is administered and managed by Infrastructure Canada, and/or for confirming past federal funding sought by the applicant.

Federal government institutions are bound by the requirements of the *Access to Information Act* and the *Privacy Act*, as well as the *Library and Archives Canada Act*. These laws apply to the use, disclosure and retention of information (such as personal, confidential or other) under the control of federal government institutions.

Applicants should note that Infrastructure Canada may consult and share the information provided in applications with other federal government institutions or other organizations for the purpose of assisting Infrastructure Canada with project review and evaluation, determining eligibility under other federal government programs, and confirming past federal funding sought by an applicant. Infrastructure Canada may also use and disclose the information to external experts (e.g., scientific, technical, financial, marketing, or commercialization), hired by the Government of Canada under contract with confidentiality obligations, for the purpose of assisting Infrastructure Canada with project review and evaluation and/or determining eligibility under other federal government programs.

In submitting an application, applicants are consenting to such uses, sharing and disclosures of the information for the purposes described above. Applicants are invited to clearly identify in their application the provision of any information that contains trade secrets, is confidential or that if disclosed, could reasonably be expected to result in material financial loss or gain to, or to prejudice the competitive position of, a third party, or, to interfere with contractual or other negotiations of a third party, as outlined in section 20 of the *Access to Information Act*. Once a funding agreement is signed, the name of the successful applicant, location, date of approval, the funding amount, and the project description may be proactively disclosed to the public.

Any questions?

If you have any questions about the Green and Inclusive Community Buildings program that were not answered by this guide or its annex, please contact the GICB program team at infc.gicbp-pbcvi.infccanada.ca.

Version Date: June 2021

ANNEX A: How to Complete the Online Application Form

All interested applicants are invited to register for a system login by first completing the Applicant Registration Form located on the Infrastructure Canada website. Filling in this form will allow the GICB team to conduct a preliminary verification of your eligibility as an applicant and create an account for you in the online application portal. The creation of an account will allow you to access the application form and gain access to applicant support services.

For any questions regarding the Registration Form, or general applicant and project eligibility not answered by the Applicant Guide or its annexes, please contact: infc.gicbp-pbcvi.infc@canada.ca.

Once preliminary verification of your eligibility is completed, it is strongly suggested that applicants apply online through the application portal to avoid delays in the processing of your application. Detailed instructions on how to complete an application are found below.



BEFORE YOU BEGIN:

Before you begin the application form, please read the list below and be certain that your project meets the each of the minimum eligibility requirements. *Projects not meeting the criteria below will be ineligible.*

- The building/asset must be a non-commercial community-oriented structure or space that provides open, available, and publicly-accessible community services (See Question 43)
- The building/asset must be located in an area with underserved populations experiencing higher needs and be the site of publicly-available programming and/or activities that demonstrably serve these populations (See Question 46)
- The building/asset must be of an eligible asset type (See Question 22)
- The applicant must be an eligible recipient and must have authority over the building/asset either as the owner or have secured an agreement with the asset owner to carry out the project (See Question 42)
- The project must be implemented no earlier than April 1st, 2021, and no later than March 31st, 2026 (See Question 32)
- A renovation, upgrade, repair or retrofit must achieve a climate-focused objective for a building/asset, including measures that result in at least a 10% energy savings (using RETScreen® Expert software) and can demonstrate an expected reduction in GHG emissions (must not lead to an increase in the buildings operation GHG emissions) (See Questions 27-29)
- A new build project must be one of the following: 1) Built to be a net-zero-carbon building; or, 2) Built to be a net-zero-carbon-ready building (net-zero carbon building with a transition plan); or, if exempted, 3) Built to exceed the highest standard of either [2017 National Energy Code of Canada for Buildings](#) or the newest energy code published, or the provincial or territorial code (where the project site is located), whichever code is the higher standard (See Question 31)
- Retrofit projects that intend to improve accessibility, as well as all new builds, must meet or exceed the highest published accessibility standard as defined by the requirements in the Canadian Standards Association's Technical Standard Accessible Design for the Built Environment (CAN/CSA B651-18) and/or application provincial or territorial building codes, and relevant municipal by-laws (see Question 49).

Please note: Applicants do not need to complete their online application in one attempt. Applications can be saved and returned to it as many times as necessary before submission. While using the Application Portal, applicants will have access to support services at any stage during the application process.

The Application Form: Step-by-Step

Section 1: Tell us who you are

A. Organization Type

1. Please select your organization type

- Select from among the checkbox options provided.
- All Indigenous organizations or governing bodies (including Indigenous not-for-profits, municipal Indigenous governments) should select *Indigenous governing body or organization (including not-for-profits)*. You will be provided a series of checkboxes. Please select from the list to locate your specific governing body or organization.
- If you select federally or provincially incorporated not-for-profit, you will be asked to provide your organization's incorporation number and to specify under which federal, provincial, or territorial legislation you are incorporated.

2. Please provide a brief summary of your organization and mandate

- This question only applies to federally or provincially incorporated not-for-profits and Indigenous not-for profits
- Using the text box, please provide a description of your organization focusing on its mandate and priorities. [Character limit: 2000]

3. Please provide an explanation of how your organization is governed (e.g., board of directors, advisory board) and its structure and demonstrate that your organization has effective governance measures in place to provide appropriate oversight of this project

- Using the text box, please provide an explanation of how your organization is governed (e.g., by a board of directors, advisory board, etc.) and its structure. Please explain the roles and credentials of key executives and personnel (e.g., the level of experience of board members, etc.) and indicate how these individuals will specifically be involved in the management and oversight of the proposed project.
- The purpose of this question is to clearly demonstrate that your organization has effective governance measures in place to provide appropriate supervision and control of this project to ensure its success. [Character limit: 4000]

B. Organization Information

4. Organization Name

- Using the text box, please provide your organization's legal name as shown on the certificate of incorporation/registration. Please ensure its full legal name is reflected. For example, is your organization's legal name "The Corporation of the City of Smithville" or "The City of Smithville"?

5. Organization's Province or Territory

- Select from among the options provided the province or territory in which your head office is located.

6. Organization Mailing Address

- Using the text box, provide your *organization's* full mailing address, including street address, town/city, province/territory, and postal code. If your organization has multiple buildings or locations, please provide the most central mailing location (e.g. for municipalities, please provide the address of your townhall). Please note this is not the address of the project site; this information will be captured below.
- Example: 180 Kent Street,
Ottawa, ON K1P 5P5

C. Contact Information:

7. Primary Contact Name

- Please provide the name of this project's *primary contact*. This individual will be the contact that Infrastructure Canada will reach out to with any questions regarding this application and/or this project.

8. Primary Contact Title

- Please provide the primary contact's job title (e.g., President, Executive Director).

9. Primary Contact Phone Number

- Please provide the primary contact's phone number.

10. Primary Contact Email

- Please provide the primary contact's e-mail address.

11. Secondary Contact Name

- Please provide the name of this project's *secondary contact*. This individual will be the contact that Infrastructure Canada will reach out to with any questions regarding this application and/or this project if the primary contact is not available.

12. Secondary Contact Title

- Please provide the secondary contact's job title (e.g., President, Executive Director).

13. Secondary Contact Phone Number

- Please provide the secondary contact's phone number.

14. Secondary Contact Email

- Please provide the secondary contact's e-mail address.

Section 2: Tell us about your project

A. Project Location

In this section, you must provide information about where your project will take place. In some cases, this may differ from where your organization's office is located.

Project location information will be used by Infrastructure Canada to apply needs-based criteria under the GICB Program.

15. Project Province or Territory

- Select from among the options provided the province or territory in which the project will be undertaken.

16. Project Municipality, Local Service District, Reserve or Settlement

- Using the text box, please provide the name of the jurisdiction in which the project will be located.

17. Project Site Civic Address (or future civic address)

- Using the text box, please provide the full address of the project site, including the street number and name. Please note: If the project site does not yet have an address, please provide an approximate street address.

18. Postal Code of the Project Site

- Please provide the postal code of the project site.

19. Latitude

- Please provide the latitude of the project site. To determine the coordinates of the site, please use [Google Maps](#). Coordinates can be found by right-clicking on the project site. Latitude and longitude appear at the top of the lists. Clicking on the figures will copy the information to your clipboard. The first number is the latitude, which you can paste into the application form. For example, the latitude of the headquarters of Infrastructure Canada is 45.417.

20. Longitude

- Following the same instructions as above, please provide the longitude of the project site. The second number is the longitude. For example, the longitude of the headquarters of Infrastructure Canada is -75.701. Please be sure to include the negative sign ("-") before the coordinate.

B. Project Information

Eligible applicants may apply separately for each project they wish to have considered for funding. If you are submitting multiple applications, please clearly indicate the priority ranking of the projects in Question 62: Additional Information.

21. Project Name

- Using the text box, please provide a name for your project. Note that if your project is approved, this name will be used for public announcements, for the funding agreement and for public reporting. [Character limit: 200]

22. Type of Building/Asset

- Please select the type of building/asset that will be part of your project from the list provided. You can only select one type, so please select the one that best describes your project.

23. Type of Project

- Select if your project will be a *Retrofit, Repair and/or Upgrade* to an existing building, or if it will be the construction of a new building ("*New Build*").
- Note: An expansion or addition of 30% or greater of an existing building's floor space is considered a new build project. Projects involving the demolition of over 30% of an existing building's floor space are also considered new build projects. Projects that demolish up to 30% of an existing building's floor space and reconstruct/renovate/rebuild up to 30% of the building's baseline floor space are considered retrofit projects.

24. Short Project Description

- Using the text box, please provide a concise summary of your project (e.g. the nature of the rehabilitation, renovation, repair, expansion, or construction work). Describe what you are looking to achieve, and how you will achieve it, including information about the communities and populations the project will benefit. Please note that this information may be used by Infrastructure Canada for public reporting. [Character limit: 1000]

25. Detailed Project Description

- Using the text box, please provide a longer and more detailed description of your project than the description found in Question 24. This description should provide information about the project, its objectives, who it will benefit, and your projected timeline for completing it. [Character limit: 2000 for small and medium retrofit and 4000 for large retrofits and new builds.]

26. Project Rationale: Community Needs

- Using the text box, please explain the rationale for undertaking your project. Please provide the following:
 - For Retrofit projects: [Character limits: 3000 for small and medium retrofit and 6000 for large retrofits]
 - What open and publicly-available community services/programs are currently being offered at the building site?
 - What and whose needs will the project serve?
 - How will this project benefit the local community?
 - For New Build projects: [Character limit: 6000]

- What open and publicly-available community services/programs will be offered at the building site? What and whose needs will the project serve?
- Describe the access and/or availability of similar infrastructure in the local area and how the project will benefit the community or fill a community gap/need. You may also choose to highlight if the proposed location is near other infrastructure (e.g., schools, senior’s residences) whose users may be expected to benefit from your proposed new build. You may also wish to indicate if the proposed location is easily accessible by walking, public transit and/or roads and highways.

Section 3: How does your project support the objectives of the GICB Program?

A. Environmental/Green Objectives

For Retrofits

Questions 27-29 require use of the **RETScreen® Expert software** and the completion of a **RETScreen® Assessment**. You can complete a RETScreen® assessment by first downloading the [RETScreen software package](#) and installing it on your computer. This tool is free to use for applicants to this program. A software key for access to RETScreen Expert Professional mode (required for the program’s full functionality and to save files) will be provided to program applicants.

- Using the RETScreen® Expert software, you will need to create a new profile for your building/asset, comparing the “base case” (current energy and emissions profile of the building/facility) with the “proposed case” (the expected energy and emissions profile of the building, post-retrofit. The analysis will require your building’s current energy consumption, which can be inputted into the software from your utility bills.
- Once completed, your RETScreen® Assessment will provide you with an overview of your project’s estimated energy savings, and GHG emission reductions.
- Using the software, you will need to share your RETScreen® file (.retx) in Q29 of the Application Form. The report will be used by Infrastructure Canada as part of the assessment of your application.
- Please note: if you have previously used the ENERGY STAR Portfolio Manager® or EnergyCAP to establish baseline energy efficiency measures for your building or asset, you may use these as part of the RETScreen® assessment when prompted.

Please note: Retrofit projects that will not, according to the RETScreen® assessment, achieve a minimum energy savings of at least 10% will not be eligible for funding.

27. Total estimated energy savings

- Based on the completed analysis in the RETScreen® Expert software, please enter the percentage of total estimated energy savings from your project.

28. Estimated Greenhouse gas (GHG) emission reduction

- Based on the completed analysis in the RETScreen® Expert software, please enter the estimated greenhouse gas (GHG) emission reduction in tonnes generated by your

project. Do not submit a negative value as this would be interpreted as an increase in GHG emissions rendering your project ineligible. (e.g. If GHG emission reduction is 50 tonnes, input “50” and not “-50”.)

29. Upload the full RETScreen® Assessment

- Please upload the RETScreen® assessment file (.retx) for your project.

30. Has your project undergone an energy efficiency audit?

- Please select Yes or No. If you choose Yes, please upload your energy efficiency audit document using the upload button provided and follow the instructions.
 - Please select from the drop-down menu (Yes or No) to indicate if you intend to undergo an audit in the next 3 months.

For New Builds

In Question 31, you are asked to declare to what standard you will build your project. Please select one of the three available options.

*Please note: Applicants applying to build **net-zero-carbon** buildings will receive a higher score than those that propose to build **net-zero-carbon-ready** buildings.*

31. To which net-zero building design standard will your project be built?

- **Net-zero-carbon**
 - Net-zero-carbon means that the building is designed to perform as a highly energy efficient building that produces onsite, or procures, carbon-free renewable energy or high-quality carbon offsets in an amount sufficient to offset the annual carbon emissions associated with building materials and operations without the need for a net-zero carbon transition plan. You can review the [Zero Carbon Building Design Standard V2](#) for more information.
 - Please upload an attestation letter from a qualified registered professional (i.e. a professional engineer, architect or certified engineering technologist etc.) that verifies that the project is designed to meet the [Zero Carbon Building Design Standard V2](#) without the need for a net-zero carbon transition plan. If your project is selected for funding you will be required to seek and obtain the [Canada Green Building Council Zero-Carbon Building Design Certification](#) at project completion as part of the final reporting requirements. The costs of obtaining the attestation letter and certification are considered eligible costs under the GICB program if incurred after April 1, 2021 and prior to March 31, 2026.
- **Net-zero-carbon-ready**
 - A net-zero-carbon-ready building is one that has been designed and built to a level of performance such that in accordance with a transition plan it will, i.e. with the addition of solar panels or other renewable energy technologies, achieve net-zero performance in carbon emissions.

- Please upload your building’s transition plan for achieving net-zero-carbon performance and an attestation letter from a qualified registered professional (i.e. a professional engineer, architect or certified engineering technologist etc.) that verifies that the project is designed with a transition plan to meet the [Zero Carbon Building Design Standard V2](#). If your project is selected for funding you will be required to seek and obtain the [Canada Green Building Council Zero-Carbon Building Design Certification](#) at project completion as part of the final reporting requirements. The costs of obtaining the attestation letter and certification are considered eligible costs under the GICB program if incurred after April 1, 2021 and prior to March 31, 2026.
- **Seeking exemption from net-zero-carbon design standards**
 - If you are an applicant from a remote and Northern community, (including all communities in the territories and typically climate Zone 8 - communities with more than 7000 Heating Degree Days, as identified in the [2017 National Energy Code of Canada for Buildings](#)) you may seek an exemption to the net-zero carbon design standard for new builds if the project is in a location where standards cannot be met due to geographical or logistical constraints. If you are seeking this exemption, please provide an explanation and justification in the text box provided. You must explain the limitations faced and any mitigation measures taken to address these limitations. The granting of exemptions is subject to INFC approval and may result in your application being determined as ineligible.
 - Please include the specific design measures being implemented that will allow the building’s energy performance to exceed the [2017 National Energy Code of Canada for Buildings](#) (or the newest energy code published) or the provincial or territorial code (where the project site is located), whichever code is the higher standard. Please upload an attestation letter from a qualified registered professional (i.e. a professional engineer, architect or certified engineering technologist etc.) that verifies that the design of the building’s energy performance will exceed the [2017 National Energy Code of Canada for Buildings](#) (or the newest energy code published) or the provincial or territorial code (where the project site is located), whichever code is the higher standard. The cost of obtaining the attestation letter is considered an eligible cost under the GICB program if incurred after April 1, 2021 and prior to March 31, 2026. [Character limit: 2000]

B. Project Timelines

32. Please provide the project’s forecasted dates for the following key milestones.

Please use the calendar tool provided for all sub-questions related to project timelines.

- **Forecasted Planning Start Date**
 - Please provide the date on which you anticipate beginning to put together formal technical plans for your project (design phase).

- **Forecasted Permit and Approvals Date**
 - Please provide the date on which you anticipate receiving all required approvals to get your project started.
- **Forecasted Site Preparation Start Date**
 - Please provide the date on which you will begin to prepare your site before construction/work can start, including any vegetation clearing.
- **Forecasted Construction Start Date**
 - Please provide the date on which substantial work on your project will begin.
- **Forecasted Construction End Date**
 - Please provide the date on which the project will be substantially completed, when an engineer or other professional determines that all construction objectives have been met, OR the date on which the building/asset will be open to the public.

C. Project Costs and Funding

33. Please provide the following information regarding project costs, and upload budget documentation. Clearly identify the project's eligible and ineligible costs as well as their estimated value.

- Please provide numerical figures in the text boxes provided.
 Note that only costs incurred after April 1, 2021 are eligible. If a contract has been signed prior to April 1, 2021, all related expenditures to that date are not eligible even if they are to be incurred after April 1.
Total project costs: the overall cost of your project, including eligible and ineligible costs.
Total eligible costs: the sum of all your eligible costs.
Federal Share: The amount of funding you are seeking from Infrastructure Canada. Information on federal cost share is found in the Applicant Guide.
Applicant Share: The balance of funds you will be contributing to the project, including all ineligible costs.
Other sources of funding: Funds you are receiving from all sources other than from Infrastructure Canada. If you are receiving funds from another federal department for expenses related to this project, please also include this information here.

TOTAL vs. ELIGIBLE COSTS - Who is paying for what?

Federal Share and *Applicant Share* of funds are important concepts to understand and consider to ensure the success of your project. The maximum *Federal Share* of the costs of your project under the Green and Inclusive Buildings Program is determined by your total *eligible* project costs, not by your total project costs. All ineligible costs are part of the *Applicant Share*. These are your responsibility and will not be eligible for federal reimbursement.

Note: Any cost increases or cost overruns will not be covered by Infrastructure Canada. It is therefore important that you include in your budget all contingency amounts according to the stage of your project (conceptual, preliminary design, detailed design and ready to tender).

For example, a project could include the following costs, which includes contingency costs:

- \$1.5M for design contracts costs
- \$3.5M for construction contracts costs
- \$1M for land acquisition for proposed building expansion
- \$500K for salaries within your organization

Under this Program, only the design and construction contracts are eligible costs (\$5M). The remaining costs are ineligible (\$1.5M). The total project cost is the sum of the total eligible costs and the ineligible costs (\$5M + \$1.5M = \$6.5M).

If the *Federal Share* is 80% of eligible costs ($80\% * \$5M = \$4M$), then the *Applicant Share* is the balance of funds that needs to be secured by your organization ($\$6.5M - \$4M = \$2.5M$).

Please note: Recipients will ensure that contracts are awarded in a way that is fair, transparent and competitive. If you are planning on awarding non-competitive contracts (sole source) as part of your project, you must receive the authorization from the Government of Canada prior to their signature for these costs to be deemed eligible for a federal reimbursement. Additional information will be required and approval delays are anticipated.

34. If funding has not been secured, please provide a description of how you will secure the funding, as well as the date it will be secured.

- Using the text box, please provide the amount of funding not yet secured for your project, a description of your plans to secure the balance of funds, as well as the date on which you anticipate all funding to be secured. [Character limit: 1000]
- *Please note: By submitting an application, applicants commit to securing the balance of funds should their project be approved for federal funding.*

35. Please provide the breakdown of the federal contribution that your organization will be claiming per fiscal year (April 1st to March 31st) from Infrastructure Canada. Each line must be completed. If a federal contribution is not required for a given year, please enter "0".

- The Government of Canada's fiscal year begins April 1 and ends on March 31. Please specify the amount of funding for eligible costs you will be claiming from Infrastructure Canada for each fiscal year of your project's implementation.
- Note that this is not necessarily the year in which you will be incurring costs, but rather when you will be submitting them for reimbursement to Infrastructure Canada.

D. Maintenance and Ongoing Operations

Maintenance and ongoing operations are not eligible expenses under this program. Please confirm that the organization expects that it will have the financial capacity to maintain building/asset operations post completion, as well as the programs and/or services for a period of 6 years following the completion of construction, renovation and/or retrofit activities.

36. Please check this attestation box to confirm that your organization expects that it will have the financial capacity to maintain building/asset operations, as well as the programs and/or services for a period of 6 years following the completion of construction, renovation and/or retrofit activities.

- Using the checkbox, please attest to your organization's financial capacity.

E. Project Readiness

37. Please indicate the current class estimate for your project.

- Class estimates are cost estimates for your project that are provided at different steps of the design process. Class D estimates are generally estimates provided early in the design process, whereas Class A estimates can only be provided after all construction documents are verified and complete. Please select your current class estimates from the drop-down menu.
- Class estimates are defined as:
 - **Class A:** Estimates made after bids for a project have been received, evaluated, verified and once a contract is ready to be signed. Budgets for projects at this stage usually include a contingency of 5% to 10%.
 - **Class B:** Estimates made at the "Detailed Design" stage when the project is ready for tendering. Budgets for projects at this stage usually include a contingency of 11% to 15%.
 - **Class C:** Estimates at the "Preliminary Design" stage and may be referred to as pre-tendering estimated. Budgets for projects at this stage usually include a contingency of 16% to 20%.
 - **Class D:** Estimates at the "Conceptual Design" stage. Budgets for projects at this stage usually include a contingency of 21% to 30%.
- For more information, please refer to the definitions of estimates [here](#).

38. What is the contingency percentage currently included as part of your project’s budget?

- In the box provided, please provide a figure that indicates your contingency percentage. This is the amount that is added to your cost estimates to account for risks and uncertainties. Please provide the figure as a percentage of your overall budget. For example, for a budget of \$10M, a contingency of \$1M would be expressed as 10%.

39. Please indicate the status of the construction permits (e.g. construction, provincial/territorial, environmental, etc.) required for your project.

- Please select from the checkbox options provided.

40. Please provide details on community and stakeholder engagement activities that have been conducted in relation to the project, including with Indigenous peoples.

- Using the text box, please describe the information you have received from these groups concerning your project. [Character limit: 4000.]

F. Information about the Building/Asset:

41. For retrofits only: Please indicate the current condition of the building or asset.

- Please select from the checkbox options provided. The current condition of your building or asset should be evaluated as follows:
 - **Very poor:** Immediate need to replace most or all the asset. There are health and safety hazards that present a possible risk to public safety, or the asset cannot be serviced or operated without risk to personnel. Major work or replacement is required urgently. The operating asset has less than 10% of its expected service life remaining.
 - **Poor:** Failure likely and substantial work is required in the short term. Asset barely serviceable. No immediate risk to health or safety. The operating asset has less than 40% of its expected service life remaining.
 - **Fair:** Significant deterioration is evident; minor components or isolated sections of the asset need replacement or repair now, but the asset is still serviceable and functions safely at an adequate level of service. The operating asset has at least 40% of its expected service life remaining.
 - **Good:** Acceptable physical condition; minimal short-term failure risk, but potential for deterioration in the long term. Only minor work required. The operating asset has at least 80% of its expected service life remaining.
 - **Very good:** Sound physical condition. The asset is likely to perform adequately. The operating asset has at least 95% of its expected service life remaining.

42. Is your organization the owner of the building or asset involved in this project?

- Select “Yes” if your organization owns the building or asset to be retrofitted, or in the case of new builds, the land on which the new building or asset will be built.
- If “No” is selected, you must attest that you have a valid agreement with the owner of the land, building or asset that will allow you to carry out the project.

43. Does the building or asset implicated in the proposed project provide open, available, accessible services directly to the public?

- Please select from the checkbox options provided. Please note, only buildings or assets that provide open, available, publicly-accessible services directly to the public are eligible for funding under this program.

G. Risk and Mitigations

44. Please provide the risks associated with your project as well as corresponding mitigation measures. Infrastructure projects can be complex as they may involve new technologies, require coordination among multiple partners or land acquisition, face shortages in skilled labour and supplies or be subject to specific legislative requirements. If you are planning to award any non-competitive contracts (sole source) as part of your project, please provide information here, including if known, the estimated amount of the sole source contract, who will be conducting the work, the nature of the work, and explain why sole source contracting will be used. Please note that you must receive the authorization from the Government of Canada prior to signing any non-competitive contract. Additional information will be required and approval delays should be anticipated.

- In text box, please provide a concise explanation of anticipated project planning and implementation risks and the steps you will be taking to mitigate them. [Character limits: 2500 for small and medium retrofits, and 4000 for large retrofits and new builds]

45. Please describe your organization's internal capacity and expertise to manage and execute the project. If applicable, please include any past funding experience with the Government of Canada and the results of the project.

- Using the textbox, please provide a concise description of the capacity of your organization to oversee and implement your proposed project. [Character limits: 2500 for small and medium retrofits, and 4000 for large retrofits and new builds]

H. Benefits to Underserved and High Needs Communities

Funding for the GICB program is targeted to communities that are underserved, have higher needs, and serve equity-deserving groups. Equity-deserving groups are communities that experience significant collective barriers to participating in society. This could include attitudinal, economic, environmental, historic, and/or social barriers based on age, sex, ethnicity, disability, economic status, family status, race, sexual orientation, gender identity or expression, etc.

46. Will your project target communities that are underserved, with higher needs, and/or equity-deserving groups?

- Please select "Yes" or "No". Please note, projects that do not serve one or more communities that are underserved, with higher needs, and/or equity-deserving groups are not eligible for funding.

47. Please indicate which of the following groups will benefit from the proposed project.

- Please select the population and groups to be served using the checkboxes provided.
- In the text box, please describe how this project will benefit these groups. [Character limit: 2500 for small and medium retrofits; 4000 for large retrofits and new builds.]

48. Will your project address measures under the Truth and Reconciliation Commission Calls to Action or other municipal, regional and community plans and reports?

- Please select “Yes” or “No”. If Yes is selected, please provide a description of what needs your project responds to using direct references to any municipal, regional or community reports, or the Truth and Reconciliation Commission’s 94 Calls to Action. [Character limit: 1500 for small and medium retrofits; 4000 for large retrofits and new builds.]

49. Will your project remove barriers and improve accessibility for persons with disabilities (e.g., installation of accessible entrances, power-assisted door openers, elevators, accessible washrooms, visual and audible alarm systems, and signage with large print, high contrast lettering and Braille, etc.)?

- The *Accessible Canada Act* defines a barrier as anything — including anything physical, architectural, technological or attitudinal, anything that is based on information or communications or anything that is the result of a policy or a practice — that hinders the full and equal participation in society of persons with an impairment, including a physical, mental, intellectual, cognitive, learning, communication or sensory impairment or a functional limitation.)
- Please select Yes or No from the checkbox. If you select Yes, please attest using the checkbox provided that the project will at minimum meet the highest published accessibility standard as defined by the requirements in the [Canadian Standards Association's Technical Standard Accessible Design for the Built Environment \(CAN/CSA B651-18\)](#) and/or application provincial or territorial building codes, and relevant municipal by-laws.

50. If your project is expected to exceed the highest applicable accessibility standards above, please explain how and describe what elements will be implemented.

- All projects are expected to meet the highest published accessibility standards applicable as noted in Q.49. If you are intending to exceed these standards, please identify concrete measures you will be implementing as part of your project and how they will exceed the highest accessibility standards applicable to your project. Accessibility audits can be conducted and provided as supplementary information. Expenditures related to accessibility audit are eligible costs under this program. Provide your description in the text box provided. [Character limits: 2000 for small and medium retrofits; 4000 for large retrofits and new builds]

I. Climate Resilience and Adaptation

Applications will be evaluated based on the degree to which they consult future climate data and integrate measures to improve the climate resilience of their project. Projects that identify medium or high risks but do not include measures to address these risks will be ineligible.

Small and Medium Retrofit Projects:

51. What current or future climate change impacts and associated natural hazards create risks for your project? Please check all that apply and provide a list of the climate data you consulted in answering this question.

- Using the checkboxes provided, select which risks your project will be more susceptible to in the future due to the effects of climate change.
- Please refer to Annex B for a list of resources, including a *Climate Resilience First Assessment Worksheet* that provides a step-by-step guide for assessing climate risks that will assist you in answering this question.
- In the text box, identify what climate data were consulted to assess the climate change-related risks of your project. [Character limit: 1500]

52. What resilience measures are you implementing to address the climate risks facing your project?

- Using the checkboxes provided, select all measures that will be incorporated into the implementation of your project. In the text box, provide details on measures adopted, or why no measures have been included. For example, you could describe how the measures taken will increase resilience, including specific resilience measures to address the medium and high climate risks identified above. Examples could include installing flooding sensors in elevators; or elevating electrical and HVAC systems to minimize flood risk. Note that some climate change risks may require the planning of multiple resilience measures.
- If you identified a risk in Question 51 but have not presented any planned resilience measures for, please provide an explanation.
- Please refer to Annex B for descriptions and examples of different resilience measures to address different climate risks.
- [Character limit: 4000]

53. Is the building or asset you are proposing to retrofit currently used or intended to be used for disaster relief?

- Select Yes or No in the checkbox provided. Projects to be used for disaster relief need to be designed with considerations that will allow operation of the building to continue after a disaster. For example, your project may need to include considerations for generators, or additional gathering spaces for the community in case of disaster.

Large Retrofit and New Build Projects

54. Is your project at risk of, or vulnerable to climate-influenced risks or natural hazards such as flooding, earthquakes, wildfires, permafrost melt or coastal erosion? Please provide an assessment of the current and future climate risks for the proposed project. The assessment should consider climate risks during the construction phase as well as changes during the planned operation and maintenance phases over the entire lifespan of the building or asset.

- Using the text box, please provide an assessment of the current and future climate risks towards the project you are proposing. The assessment should consider climate risks during the construction phase as well as changes in climate risks during the planned operation and maintenance phases over the entire lifespan of the building or asset. For example, wildfires will present a risk to a community center project if it is located near a forested area that is experiencing increased occurrence of drought and increasing temperatures.
- You may wish to consult multiple climate models to consider the range of potential future changes. Please refer to Annex B for a list of resources, including a *Climate Resilience First* assessment worksheet that provides a step-by-step guide for assessing climate risks. This worksheet can be used to determine the answer(s) to this question. [Character limit: 4000]

55. Please list the climate data and tools that were consulted to assess any current and future climate risks to your project. If no future climate data were consulted, please provide an explanation. You may wish to review/consider future climate projections available through the Canadian Centre for Climate Services and ClimateData.ca in order to assess your climate change risks.

- In the textbox provided, please list the climate data and tools that were consulted to assess any current and future climate risks to your project. If no future climate data was consulted, please provide an explanation. [Character limit: 4000]
- Please refer to Annex B for additional support, reference and resources on climate change data and tools.

56. What adaptation/resilience measures have been taken or will be taken to improve the climate resilience of your building or asset? Projects must demonstrate how these measures will address all the climate risks identified in Question 54.

- Please provide details on how the measures taken will increase resilience, including specific resilience measures to address all the medium or high climate risks identified. Examples could include installing flooding sensors in elevators; or elevating electrical and HVAC systems to minimize flood risk. Some climate change risks may require the planning of multiple resilience measures. If you have identified a risk but not presented any planned resilience measures, please provide an explanation. [Character limit: 4,000.] Please refer to Annex B for descriptions and examples of different resilience measures to address different climate risks.

57. Is your building or asset intended to be used for disaster relief?

- Select Yes or No in the checkbox provided. Projects to be used for disaster relief need to be designed with considerations that will allow operation of the building to continue after a disaster. For example, your project may need to include considerations for generators, or additional gathering spaces for the community in case of disaster.

Section 4: Additional information

58. If you have previously submitted your project to one of the following Investing in Canada Infrastructure Program streams (through a province or territory), please identify which one by selecting from the streams below:

- If you have previously submitted the project to the Investing in Canada Infrastructure Program through your province or territory, please indicate the relevant stream.

59. If you have previously submitted your project to another federal program for funding, please select all the programs that apply from the list below:

- If you have previously submitted the project to other federal funding programs, please select from the list provided. If you cannot find a program in the list, please choose “other” and enter the name(s) of the program(s) in the text box provided.

60. If you have previously submitted your project to another provincial or territorial program for funding, please indicate which province or territory and state the name of the program below:

- If you have previously submitted the project for funding through a provincial or territorial funding program, please indicate the province or territory and the name(s) of the funding program(s) in the text box provided. [Character limit: 1000]

61. If you have previously submitted your project to one of the federally-supported programs of the Federation of Canadian Municipalities, please indicate which of the programs below.

- If you have previously submitted the project to a federally supported program of the Federation of Canadian Municipalities, please select the relevant checkbox.

62. Additional documentation

- If you have additional information relevant to your project, please upload it here and clearly identify the nature of the information in the title. For example, if you are submitting multiple applications and want to communicate the priority ranking of your projects, this would be where you would upload your prioritized project list.

ANNEX B: Climate Resilience Resources

This annex provides information to support you to include climate change considerations as part of your project design and implementation, and to ensure that infrastructure you are retrofitting or constructing is resilient to weather and climate hazards, today and into the future.

Section A outlines key resources helping you to access relevant climate data (Q.51 for retrofits and Q.54 & 55 for new builds)

Section B provides an example of a worksheet-based lightweight climate risk screening tool. This tool (or similar analyses) can provide insight into where climate change impacts may present increased risks to your project location, help you prioritize next-step analyses, and frame potential climate change resilience actions.

Section C provides examples of measures that can be implemented to increase the resilience of the asset to climate change. You are asked to provide risk reduction measures as part as your project application under this program (Q.52 for retrofits less than \$3M in eligible costs and Q.56 for projects \$3M or more in eligible costs)

A. Climate Information Resources

Canada Centre for Climate Services (CCCS):

The CCCS has developed a suite of data portals that are useful for Canadians looking for an entry-level understanding of climate change trends, informed decision-makers that need high-resolution data, and researchers with climate science backgrounds looking to collaborate and share information. These portals include:

- [Climate Atlas of Canada](#)
- [ClimateData.ca](#)
- [Platform for the Analysis and Visualization of Climate Science](#)

The CCCS also helps guide Canadians in their understanding and use of climate data by providing direct access to climate experts through the Climate Services Support Desk. The Support Desk can be reached by email at info.cccs-ccsc@canada.ca, or through the [CCCS website](#). Please check the CCCS website on a regular basis as new tools and resources become available.

Climate Resilient Buildings and Core Public Infrastructure (CRBCPI) report: an assessment of the impact of climate change on climatic design data in Canada

The National Research Council, in collaboration with Environment and Climate Change Canada and other partners, has released a forward-looking set of climate data that aligns with design information used in the National Building Code of Canada and Canadian Highway Bridge Design Code. This data, which must be used following guidance provided in the associated report, is available here: <https://climate-scenarios.canada.ca/?page=buildings-report-overview>

Regional Climate Data

- Atlantic Climate Adaptation Solutions Association: <https://atlanticadaptation.ca/>
- Canadian Climate Data and Scenarios: <http://climate-scenarios.canada.ca/?page=main>
- New Brunswick's Future Climate Data : <http://acasav2.azurewebsites.net/>

- Newfoundland and Labrador, Climate Data and Tools: <http://www.turnbackthetide.ca/tools-and-resources/climate-data-and-tools.shtml>
- Ontario Climate Risk Institute: <https://climateriskinstitute.ca/climate-data/>
- Ouranos (Québec): <https://www.ouranos.ca>
- Pacific Climate Impacts Consortium (British Columbia): <https://www.pacificclimate.org/>
- Prairie Climate Centre: <http://prairieclimatecentre.ca/>

B. Climate Resilience First Assessment Worksheet

The Climate Resilience First Assessment Worksheet below can be used to assess the climate risks to your project, whether it is a small retrofit or a new build. This can be used to support the answers to the Climate Resilience Merit criteria.

CLIMATE RESILIENCE FIRST ASSESSMENT WORKSHEET

Ensuring infrastructure resilience to climate change impacts involves assessing project vulnerability to changing weather and climate impacts, now and in the future. Resilience against climate change impacts will ensure capacity, safety, and decrease long-term costs throughout the infrastructure life span. This worksheet helps a user to note infrastructure components exposed to climate impacts, the key hazards, and risk reduction measures.

1. PROJECT DEFINITION

1.1 What infrastructure project is proposed? _____

1.2 Where will the new or retrofitted infrastructure be located? _____

1.3 How long is the new or retrofitted infrastructure expected to last? _____

2. MAJOR INFRASTRUCTURE COMPONENTS, CHANGING WEATHER CLIMATE HAZARDS, AND RESULTING RISKS

2.1 Which major infrastructure components may be exposed to weather & climate hazards?	2.2 What weather & climate hazards could affect the component?	2.3 What are the potential consequences of this hazard, to the major component?	2.4 How will hazard-relevant indices change over infrastructure lifetime due to climate change? Use Table 3 to develop this estimate.	2.5 How could the change described in Column 2.4 change the risk to this component?

3. UNDERSTANDING FUTURE HAZARD CHANGES

3.1 Hazard type	3.2 Hazard-relevant climate indices	3.3 Climate information source: include information such as location, resolution, scenario. Include a link for reference.	3.4 Quantitative or qualitative change in metric between present and end of infrastructure lifespan

4. RISK REDUCTION MEASURES

4.1 Accounting for the risk changes in section 2.5, describe the risk reduction measures for this project. This could include changes in location and siting, design and build considerations, or operation and maintenance procedures.

COMPLETING THE CLIMATE RESILIENCE FIRST ASSESSMENT

Finding climate change information that relates to potential hazards to your planned infrastructure project is important. Contact the Canadian Centre for Climate Services (CCCS) if you need help filling in this worksheet. The Support Desk can be reached at info.cccs-ccsc@canada or through the [CCCS website](#).

1. PROJECT DEFINITION

1.1: Provide the name of the infrastructure project. The name should be consistent with the project for which funding is being requested.

1.2: Provide the location of the infrastructure project.

1.3: Provide the expected lifespan (design life) of the infrastructure. Recognize the potential for major infrastructure projects to last well beyond their expected lifespans.

2. MAJOR INFRASTRUCTURE COMPONENTS and CHANGING CLIMATE HAZARDS

2.1: Develop a list of major infrastructure components associated with the planned infrastructure that may be exposed to weather and climate hazards. For this first assessment, target a high-level list that includes at most 10 components. Avoid an overly detailed or granular list. Expanded table if more space is required.

2.2: For each component listed in Section 2.1, develop a list of weather or climate hazards that could negatively affect the component. Carefully consider the component location, function, operation, and relation to other components and the surrounding environment, to ensure that all hazards are recognized. Copy Table 2 into an expanded table as required if more space is needed.

2.3: For each hazard listed in Section 2.2, qualitatively identify the consequences of the hazard on the component listed in Section 2.1, if the hazard were to manifest.

2.4: Provide a quantitative or qualitative statement on how the hazard is expected to change over the expected infrastructure lifetime. **Use Table 3 to develop this statement.**

2.5: Based on the statement of change for each hazard, identify whether the change will result in an increase or decrease in risk for each component.

3. UNDERSTANDING FUTURE HAZARD CHANGES

3.1: Copy all weather hazards identified in Section 2.1 to this column. Only provide one entry for hazards that are identified across multiple components.

3.2: For each infrastructure-specific hazard listed in Section 3.1, identify one or more general ‘hazard-linked’ climate indices that could be used to assess ongoing and future changes to hazard frequency and/or severity. In some cases, climate indices may exist that directly speak to your changing infrastructure hazards. However, this may not be the case, which means using other available climate indices as indirect ‘proxies’ to provide reasonable first insights. Consider using qualitative indices (e.g. ‘relatively high river flood levels’ or ‘general permafrost extent’) where necessary. Be sure to clearly document cases where no relevant hazard-linked climate indices can be found. To identify available hazard-linked climate indices, you are encouraged to explore trusted national and regional sources that provide infrastructure-relevant climate data. Some trusted sources of Canadian climate change information are listed in Table 1. **If you would like one-on-one support, please contact the CCCS Support Desk at info.cccs-ccsc@canada.ca or online at the [CCCS website](#).**

3.3: Once an appropriate hazard-linked index is identified for each hazard (Section 3.2), clearly document the source of information used to explore current and future changes to this index. It is good practice to document the scenario and models used, and the region over which results are averaged, or the resolution if a single grid point is used. Including a hyperlink of your sources for future reference.

3.4: Develop an estimate of change for each hazard-linked index (Section 3.2) for the project location (Section 1.2), over the expected infrastructure lifespan (Section 1.3), for the climate scenarios, models and locations specified. Quantitative future projections may be described in terms of change from a historical baseline value or a new future value. In either case, document the time periods used for both the future and historical baseline. Note also that in some cases projections for the “2020s” indicate that change from historical observations may already be considerable. Where quantitative estimates of future change are not available, it is still very useful to provide a best qualitative estimate of expected change based on available climate change information (e.g. ‘river flooding may increase’). Finally, where no information is available on changes or information is too uncertain to estimate a change value, flag that fact for potential further analysis.

Table 1: Example Climate Information Sources	
Climate Information Source	Overview
ClimateData.ca	An accessible and evolving source of climate change indices that also provides custom analyses, support, and sector-specific information.
Climate Atlas of Canada	An accessible source of multiple climate change indices, including Town and City-specific climate reports.
Climate Resilience Buildings and Core Public Infrastructure Project	A source of technical climate change information tailored to buildings and other infrastructure. Climate change information aligns with and is intended to inform on design loads for the National Building Code of Canada and the Canadian Highway Bridge Design Code.

4. RISK REDUCTION MEASURES

4.1: Based on the estimated direction of risk changes documented in Section 2.5, list risk reduction measures for this project. You can develop a list of potential adaptation and resilience options that could be employed to reduce increased risks to components arising from climate change. In addition to options incorporated into new infrastructure design or retrofitting, be sure to consider alternative risk management options, such as through strategic asset management planning, operations and maintenance, and behavioural change. For standards-based guidance options, you are encouraged to consider climate resilient codes and standards summarized at <https://www.canada.ca/en/environment-climate-change/services/climate-change/canadian-centre-climate-services/basics/developing-climate-resilient-standards-codes.html>.

C. Examples of Resilience Measures

The application refers to different types of resilience measures that can be taken as follows:

- **Building Materials:** This refers to the use of building materials that will enhance the overall resilience of your structure - for example using fire resistant materials for roofing or siding to mitigate against increased risk of wildland fire.
- **Design Consideration:** This refers to any action taken to the design of the structure such as designing for passive heating and cooling, or moving electrical equipment above ground to mitigate against flooding.
- **Operations & Maintenance:** This refers to any management strategies and/or policies to address climate risks, such as a wildland fire risk management strategy.
- **Natural/ Green Infrastructure:** Infrastructure Canada generally defines natural infrastructure as the use of naturally occurring resources or engineered use of natural resources to provide adaptation or mitigation services to the gradual and/or sudden impacts of climate change or natural hazards. This could include using rain gardens to mitigate against extreme precipitation and flooding, or the use of shade trees to address heat waves and increasing temperatures.

This is not an exhaustive list of every climate hazard, or resilience measure for the listed hazards, but provides examples of the types of resilience measures that can be taken. It is important that resilience measures are selected as appropriate to the specific consequences of each climate hazard to the asset.

Climate Hazard	Examples of Resilience Measures
Coastal Erosion	<p>Resilience informed Standards, codes or guidance</p> <ul style="list-style-type: none"> • Coastal Flood Risk Assessment Guidelines for Buildings and Infrastructure Design Applications <p>Design Considerations</p> <ul style="list-style-type: none"> • Locating away from shoreline • Locating critical infrastructure (electrical system, HVAC, plumbing etc.) above ground to reduce inundation <p>Building Materials</p> <ul style="list-style-type: none"> • Waterproof materials for foundations and flooring <p>Natural Infrastructure</p> <ul style="list-style-type: none"> • Wetlands, sea walls
Erosion	<p>Resilience informed Standards, codes or guidance</p> <ul style="list-style-type: none"> • CSA W205:19 Erosion and sedimentation management for northern community infrastructure • CSA W208:20 Erosion and sediment control, installation and maintenance • CSA W202:18 Erosion and sediment control inspection and monitoring
Flooding	<p>Resilience informed Standards, codes or guidance</p> <ul style="list-style-type: none"> • CSA Z800-18 Guideline on Basement Flood Protection and Risk Reduction

	<ul style="list-style-type: none"> • CSA A440S1-19 Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440-17, North American Fenestration standard/specification for windows, doors and skylights • CSA A123.26:21 Climate Resilience of Low Slope Membrane Roofing Systems • CSA B805-18/ICC 805-2018 Rainwater harvesting systems • CSA Z240.10.1:19 Site Preparation, Foundation, and Installation of Buildings <p>Design considerations</p> <ul style="list-style-type: none"> • Relocate critical infrastructure (electrical system, HVAC, plumbing etc.) above ground to reduce flood risks • Install backwater valves and sump pumps • Raising elevation of building <p>Building Materials</p> <ul style="list-style-type: none"> • Consider use of waterproof materials for foundations and flooring • Ensure Windows and doors are water tight <p>Natural Infrastructure</p> <ul style="list-style-type: none"> • Berms, and native plants to absorb excess water • Rain gardens • Bioswales
Hail	<p>Building Materials</p> <ul style="list-style-type: none"> • Durable roofing materials to withstand hail • Use impact resistant glass for windows <p>Operations and Maintenance</p> <ul style="list-style-type: none"> • Develop procedure to inspect building and critical systems after hail storm
Heat island effect, Heatwaves, Drought and Extreme Temperature	<p>Design considerations</p> <ul style="list-style-type: none"> • Upsizing HVAC system fit to meet needs of future climate • Passive Solar design • Account for additional water needs in sizing of utilities • Consider water capture and re-use system <p>Building Materials</p> <ul style="list-style-type: none"> • Use high albedo/ thermally reflective materials for roof and building facades • Use wall and roof insulation that minimizes heat penetration • Use materials with greater durability to solar exposure <p>Natural Infrastructure</p> <ul style="list-style-type: none"> • Green roofs to limit heat absorption • Trees for shade and cooling • Plant drought tolerant trees
Hurricanes	<p>Resilience informed Standards, codes or guidance</p> <ul style="list-style-type: none"> • CSA Z800-18 Guideline on Basement Flood Protection and Risk Reduction • CSA A440S1-19 Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440-17, North American Fenestration standard/specification for windows, doors and skylights • CSA A123.26:21 Climate Resilience of Low Slope Membrane Roofing Systems

	<p>Design considerations</p> <ul style="list-style-type: none"> • Consider stormwater management on site <p>Building Materials</p> <ul style="list-style-type: none"> • Use impact resistant glass for windows • Backup generator/ power capacity
Increased rainfall	<p>Resilience informed Standards, codes or guidance</p> <ul style="list-style-type: none"> • CSA Z800-18 Guideline on Basement Flood Protection and Risk Reduction • CSA A440S1-19 Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440-17, North American Fenestration standard/specification for windows, doors and skylights • CSA A123.26:21 Climate Resilience of Low Slope Membrane Roofing Systems • CSA B805-18/ICC 805-2018 Rainwater harvesting systems • CSA Z240.10.1:19 Site Preparation, Foundation, and Installation of Buildings • CSA PLUS 4013:19 - Technical Guide: Development, Interpretation and Use of Rainfall Intensity-Duration-Frequency (IDF) Information: Guideline for Canadian Water Resources Practitioners <p>Design considerations</p> <ul style="list-style-type: none"> • Relocate critical infrastructure (electrical system, HVAC, plumbing etc.) above ground to reduce flood risks • Install backwater valves and sump pumps • Onsite storage cisterns • Sloped roof <p>Building Materials</p> <ul style="list-style-type: none"> • Consider use of waterproof materials for foundations and flooring • Ensure Windows and doors are water tight <p>Natural Infrastructure</p> <ul style="list-style-type: none"> • Berms, and native plants to absorb excess water • Rain gardens • Bioswales
Increased snow loads	<p>Codes, standards and guidance</p> <ul style="list-style-type: none"> • CSA S502:21 Managing changing snow load risks for buildings in Canada's North • CSA S505:20 Techniques for considering high winds and snow drifting and their impact on northern infrastructure <p>Design Considerations</p> <ul style="list-style-type: none"> • Sloped roofs to manage increased snow loads • Limit roof overhang <p>Building Materials</p> <ul style="list-style-type: none"> • Durable materials to account for additional structural loads <p>Operations and Maintenance</p> <ul style="list-style-type: none"> • Monitor snow events and plan for snow removal operations

<p>Increased wind speeds or tornados</p>	<p>Resilience-informed standard, code or guidance</p> <ul style="list-style-type: none"> • CSA A440S1-19 Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440-17, North American Fenestration standard/specification for windows, doors and skylights • CSA A123.24:21 Standard test method for wind resistance of modular vegetated roof assembly • CSA S505:20 Techniques for considering with high winds and snow drifting and their impact on Northern infrastructure <p>Building Materials</p> <ul style="list-style-type: none"> • Impact resistant glass for window • Durable cladding
<p>Permafrost Degradation</p>	<p>Resilience-informed standards, codes or guidance</p> <ul style="list-style-type: none"> • CSA PLUS 4011.1:19 Technical Guide: Design and construction considerations for foundations in permafrost regions • CSA PLUS 4011:19 Technical guide: Infrastructure in permafrost: A guideline for climate change adaptation • CSA S500:14 (R2019) Thermosyphon foundations for buildings in permafrost regions • CSA S501:14 (R2019) Moderating the effects of permafrost degradation on existing building foundations • Roads and Airfields Constructed on Permafrost- A Synthesis of Practice Report <p>Building Materials</p> <ul style="list-style-type: none"> • Materials are dependent on strategy employed. They may include: structurally enhanced foundations or adjusted foundations, and may involve vented systems, gravel pads, phase change materials, insulation layers, heat sinks, passive or active thermopiles, thermosyphons, freezing systems, and drainage systems. <p>Design Considerations</p> <ul style="list-style-type: none"> • Strategy may be either to preserve or accommodate permafrost thaw during construction and the structure’s design life; or to induce complete or partial thawing, drainage and consolidation of soils before construction
<p>Wildland fires</p>	<p>Resilience informed standards, guidance and codes</p> <ul style="list-style-type: none"> • CSA S504:19 Fire resilient planning for northern communities • FireSmart <p>Building Materials</p> <ul style="list-style-type: none"> • Use fire-resistant materials for roofing, siding, windows <p>Operations and Maintenance</p> <ul style="list-style-type: none"> • Develop an emergency response plan in case of wildland fire • Develop a vegetation management plan