City of Calgary Green Buildings Guide

Webinar for industry professionals

November 3, 2026

Welcome and Introductions

City of Calgary

- Brent - Project Manager
- Quinn - Engage Lead

Consultant Team

- Clément - Project Lead, Urban Equation
- Talina - Project Support, Urban Equation
- Amanda - Engagement Support, ISL Engineering

Participation

During the presentation

We'll present first, then discuss. Use chat for questions and feedback.

Discussion afterward

We'll group comments by theme. Raise your hand to speak. Microphone and video participation are welcome.

All feedback welcome

Share what is unclear, impractical or missing from the Guide. Keep the discussion respectful and constructive.

Primer alongside

Keep the Primer open for details on the draft criteria. We'll share the link in chat.

Agenda

- Land Acknowledgement
- Project context, scope and timeline
- Guiding principles and session objectives
- Guide framework and draft criteria
- Impact analysis and reference guide
- Next steps and ways to share your feedback
- Questions and discussion



Land Acknowledgement

Why we started this project

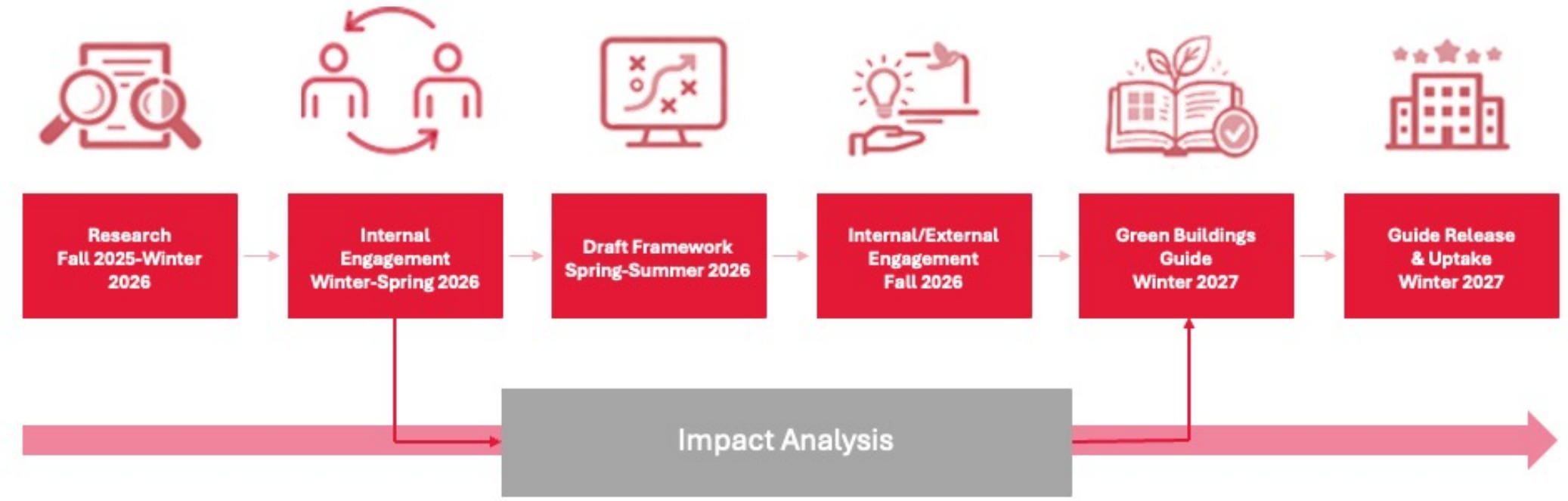
The buildings we build today will shape Calgary for decades. The City has an interest in supporting a resilient, livable, prosperous and sustainable Calgary.

Bring guidance together	Set clear targets	Show how to get there	Understand the impacts
Existing guidance is spread across many sources and isn't always specific to Calgary.	Provide measurable, Calgary-relevant benchmarks where possible, and qualitative criteria where appropriate.	Explain what matters, what the target is, and provide resources to help teams achieve it.	Test what different strategies could mean for costs, performance, resilience and other outcomes.

What is a Green Buildings Guide?

- Voluntary resource that brings performance targets, technical guidance, best practices and supporting resources into one practical reference for Calgary's building industry.
- Does not create new regulatory requirements or replace the Alberta Building Code.
- Covers low-density residential, mid- to high-rise residential, commercial, institutional and industrial buildings.
- In this engagement, we are focusing on mid- to high-rise residential, commercial, and institutional buildings.
- Calgary's GBG is focused on building-level elements and generally does not extend into broader site-, neighbourhood- or community-scale design considerations

Project overview and timeline



Project topics



Energy and Carbon



Resilience



Water



Materials & Waste



Indoor Air Quality



Mobility



Accessibility



Commissioning



Operations and Maintenance

Guiding principles

We want the Calgary Green Buildings Guide to be….

- Appropriate to Calgary (market and climate)
- Quantifiable and have measurable outcomes
- Realistic about ambition
- Easy to use
- Applicable across building types
- Future ready
- Aligned with existing plans
- Evidence based
- A compilation of Calgary's current resources and guidance, not a duplication

Share your thoughts!

For today's session, we will…

- Share with participants the:
  - Criteria for new buildings
  - Reference materials to explain the criteria and how they will be achieved
  - Impact analysis methodology that will be used to assess the Guide's financial, environmental, and social impacts.
- Gather and document questions and feedback from subject matter experts on the above to help us refine the draft materials.
- Answer questions for clarification related to the initiative and Green Buildings Guide.
- Seek support from participants in sharing the online survey with their internal members.

Guide framework

1 Learn	2 Apply	3 Excel
Learn & Understand	*Apply & Achieve Targets*	*Optimize & Verify*
• Learn Metrics • Build Knowledge • No Targets	• Set Targets • Use Cost-Effective Designs • Meet Goals	• Optimize Design • Achieve Best Performance • Verify & Document

Guide framework

What you can expect to see…

Learn	Apply		Excel	
Metric	Criteria	Source	Criteria	Source

Energy and Carbon

Intent: Design, construct, and renovate buildings to be energy-efficient, generate electricity from renewable sources, and achieve both operational and embodied decarbonization by 2050.

Metrics:

- Thermal Energy Demand Intensity (TEDI)
- Total Energy Use Intensity (TEUI)
- Peak Electrical Demand Management
- Greenhouse Gas Emissions Intensity (GHGI)
- Embodied Carbon Intensity (ECI; A1–A3)
- Future Energy System Readiness
- Renewable Electricity Procurement

Resilience

Intent: Design, construct, and renovate buildings with climate-resilient materials and incorporate elements of natural infrastructure where possible, ensuring long-term durability and safety.

Metrics:

- Climate Hazard Risk Screening
- Extreme Heat
- Flooding
- Hail
- High Winds
- Water Intrusion
- Refuge Space and Passive Survivability

Water

Intent: Monitor and reduce potable water use by implementing water-saving fixtures and appliances, efficient landscaping, and graywater recycling. Manage stormwater effectively through rainwater harvesting and on-site wastewater treatment. These measures contribute to the sustainability of Calgary's water resources.

Metrics:

- Erosion and Sediment Control
- Rainfall Runoff Management
- Total Suspended Solids (TSS)
- Rainfall Volume Retention
- Indoor Water Consumption Reduction
- Outdoor Water Consumption Reduction
- Water Use Monitoring and Leak Detection

Materials & Waste

Intent: Apply an architectural and construction model that minimizes waste and maximizes resource efficiency by designing buildings for longevity, adaptability, and disassembly. Use durable, recyclable, and non-toxic materials, implement modular construction techniques, and prioritize the reuse and recycling of building materials over disposal.

Metrics:

- Sustainable Permanently Installed Materials
- Design for Deconstruction
- Plan for Material Salvage
- Waste Collection
- Waste Storage Space
- Bulky Waste Management
- Special Waste and Reuse
- Construction and Demolition Waste Management
- Construction Waste Diversion

Indoor Air Quality

Intent: Focus on better ventilation and filtration, radon mitigation, moisture and humidity control and the use of non-toxic materials, to create healthier indoor environments for occupants.

Metrics:

- Construction Indoor Air Quality Management
- Radon
- Low-Emitting Base-Building Materials
- Low-Emitting Finishes
- Ventilation
- Filtration
- Indoor Air Quality Verification

Mobility

Intent: Support healthy, lower-emission transportation choices by providing building-level infrastructure for active transportation, cycling and electric vehicles.

Metrics:

- Active Transportation Support
- Bike Parking
- EV-Ready Parking

Accessibility

Intent: Improve accessibility and reduce barriers to the use of buildings for people with diverse physical, sensory and cognitive needs.

Metrics:

- Barrier-Free Design
- Accessibility for Common Indoor Areas

Commissioning

Intent: Verify that building systems are designed, installed, tested and operating as intended, and support continued performance through recommissioning over the building's life.

Metrics:

- Commissioning Process
- Commissioned Systems

Operations and Maintenance

Intent: Support ongoing building performance through effective operations, maintenance and performance monitoring, helping buildings continue to perform as intended over time.

Metrics:

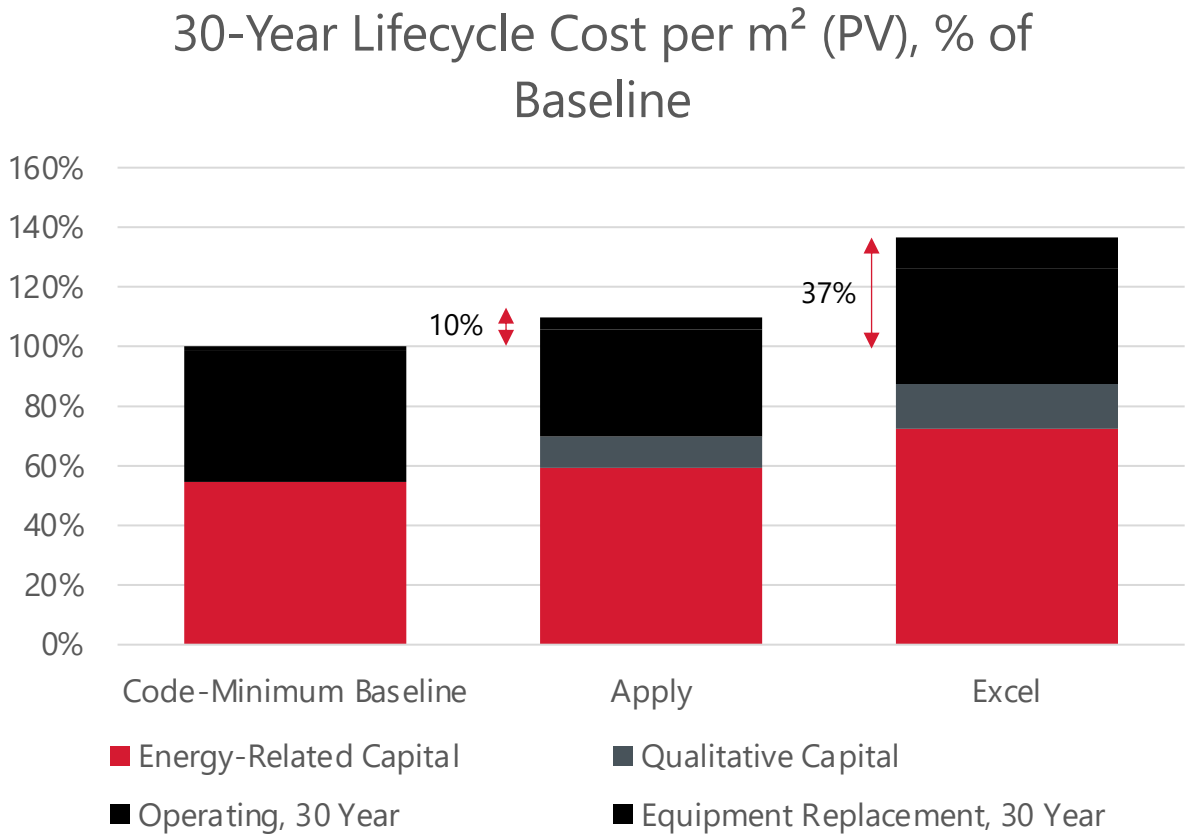
- Operations and Maintenance
- Performance Monitoring and Benchmarking

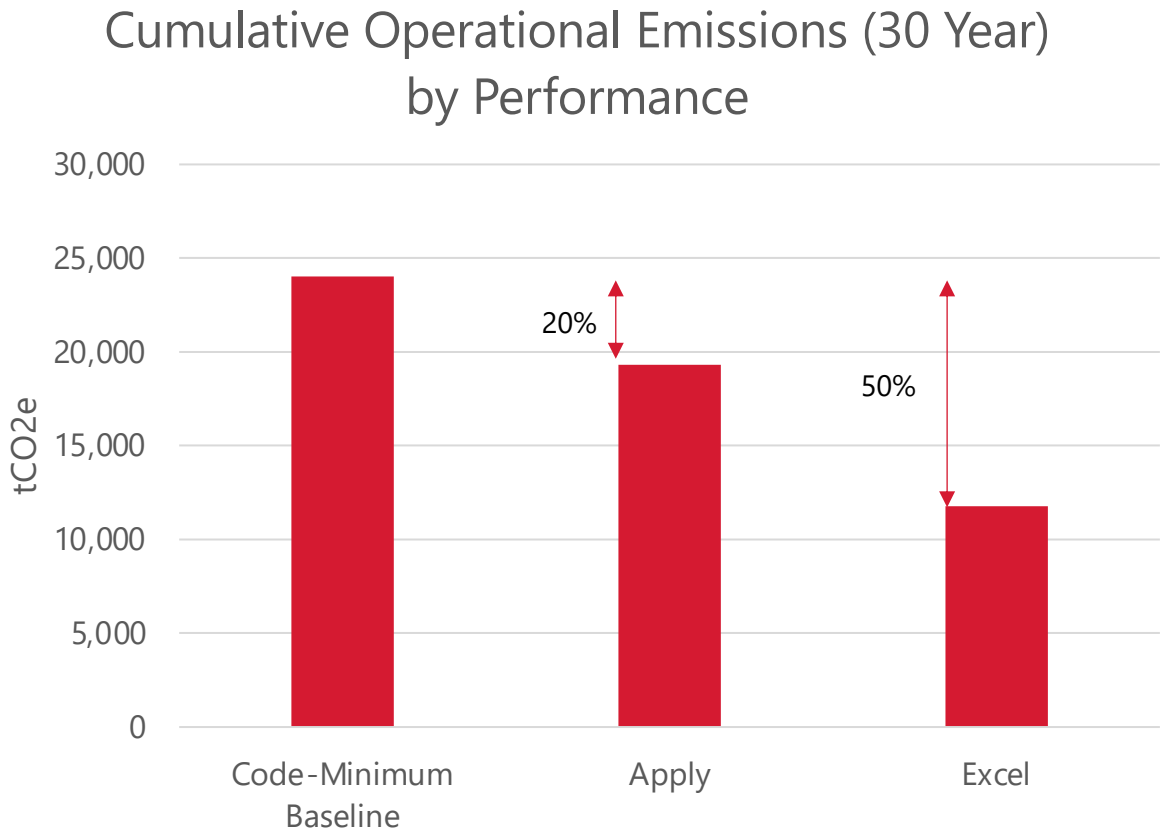
Impact Analysis – Methodology

Objective: Assess the Guide's financial, environmental, and social impacts.

- **Scenarios:** Compare baseline with Apply and Excel pathways across 5 building archetypes.
- **Environmental:** Evaluate energy, emissions, embodied carbon, and resilience.
- **Lifecycle Costing:** Estimate capital, operating, and maintenance costs.
- **Financial:** Assess 30-year NPV, savings, affordability, and market value.
- **Triple Bottom Line:** Evaluate environmental, economic, and social benefits.
- **Implementation:** Identify cost-effective measures and adoption barriers.
- **Outcome:** Evidence-based recommendations to refine criteria and support industry uptake.

Impact Analysis – Results Sample





Reference Guide - Structure

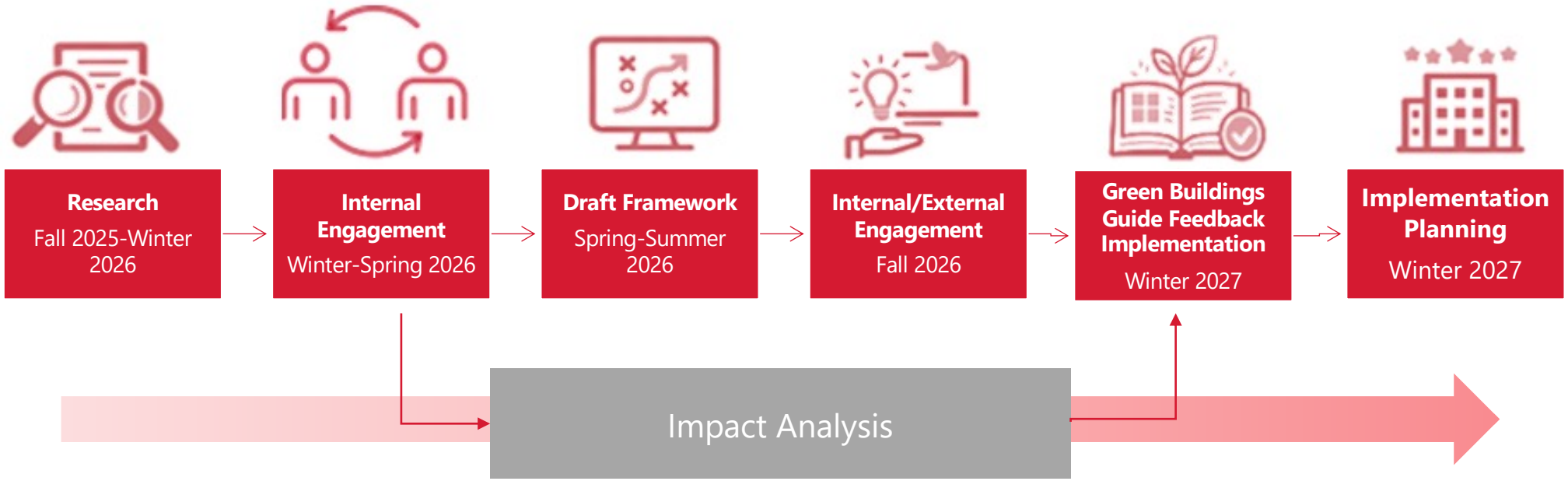
Objective: Help project teams understand each metric, why it matters, how it is measured, and how they can work toward the target.

Each metric includes:

- **Intent:** Why the metric matters and the outcome it is intended to support.
- **Definition:** What the metric means.
- **Measurement:** How the metric is measured or assessed.
- **Strategies & Best Practices:** Practical approaches that can help achieve the target
- **Resources:** Relevant standards, guidance, tools, and further reading

Next steps

- Based on your feedback, City policies and bylaws, best practices, and research, our team will be refining the draft Framework, Technical Reference Manual, and Impact Analysis.



Share your feedback!

- Use the chat tool to add your questions for clarification and your feedback.
- Use the website link below to provide your feedback to the online survey.
- Please share the link with your internal members and encourage them to complete the online survey.

https://engage.calgary.ca/greenbuilding

Thank you for your input and helping us build a healthier and more resilient city!

Questions and feedback

Please use the chat tool to add your questions for clarification and your feedback.