2026 SLCAN SUSTAINABLE LABORATORY CONFERENCE

BEYOND THE "LABORATORY BOX"

THE SCIENCE BEHIND SCIENCE SPACES







2026 PROGRAM

CURRENT AS OF SEPTEMBER 11, 2026

JOIN US IN THE HEART OF THE ROCKIES!

Dear colleagues and friends,

The **2026 SLCan Sustainable Laboratory Conference** is a Canadian national forum focused on strengthening the laboratory community and sharing knowledge, promoting best practices and innovation, as well as providing a platform for strategic thinking and discussion on the challenges and opportunities related to these assets. We are pursuing our efforts to provide participants with the best content for learning and professional development in the field of sustainable laboratories.



IN SHORT...

NOVEMBER 16 - 19, 2026

CONFERENCE VENUE IS THE BANFF CENTRE FOR ARTS AND CREATIVITY

ROOM BLOCK AT THE BANFF CENTRE FOR ARTS AND CREATIVITY

REGISTRATION IS OPEN.
SPACE IS LIMITED FOR THE PRE-CONFERENCE TRAINING.

READ MORE AND REGISTER
WWW.SLCAN.CA

PRE-CONFERENCE TRAINING

HANDS-ON WITH LABS2ZERO TOOLS

ENERGY SAVINGS MADE EASY

NOVEMBER 16, MORNING, ENGLISH TRAINING ONLY

Participants will receive hands-on training on the key tools of I2SL's Labs2Zero program: the Laboratory Benchmarking Tool (LBT) and the Actionable Insights and Measures (AIM) Report, I2SL's automated energy audit tool for lab buildings worldwide. The session will include insights into the calculations embedded in the tools, how to use them effectively, how to apply their results, and how to use the new features introduced in this year's major upgrade.

INTRODUCTION TO ADVANCED LABORATORY DESIGN

CONTAINMENT: HOW IT IMPACTS DESIGN APPROACHES FROM 10,000 FEET TO THE BENCH TOP.

NOVEMBER 16, AFTERNOON, ENGLISH TRAINING ONLY

Intended for laboratory planners, architects, engineers, and facility operators, the course will help attendees to understand how to design containment facilities and rooms, including various methods of containment within a lab facility.

The course will discuss principles such as:

- What is containment and why do we have it?
- Codes and standards used in science facility design in Canada
- Architectural considerations for facility design to suit various containment types
- Mechanical ventilation, pressurization, controls
- Electrical considerations
- Design examples

CONCURRENT BREAKOUTS

NOV. 17

STREAM 1: SHARING

COLLIDE & CREATE: RETHINKING RESEARCH SPACE AT THE MCGILL SUSTAINABILITY PARK

Anna Bendix, McGill University
Sylvain Letarte, Ingenio by Phytronix

The objective of this presentation is to explore activity-based laboratory models, showing how organizing research space around shared activities—rather than disciplines—enables high-intensity, flexible labs that support specialized research across multiple faculties. It demonstrates, through the McGill Sustainability Park, how adaptable typologies, user-engaged planning, and performance metrics can future-proof research infrastructure while fostering sustained transdisciplinary collaboration.

BUILDING RENEWAL FOR COLLABORATIVE LIFE SCIENCE RESEARCH

Vaughn Engel, University of Alberta
Janet Koshuta, START Architecture Inc.

The objective of this presentation is to describe how a major life-sciences facility renewal can move "beyond the laboratory box" by enabling interdisciplinary research through shared services, flexible collaboration spaces, and future-ready infrastructure. Its focus is a multi-phased approach—combining design strategy and project delivery planning—that minimizes disruption while incrementally modernizing labs, teaching environments, and core research resources.

FROM ASSETS TO PLATFORMS: RETHINKING SPECIALIZED LAB INFRASTRUCTURE THROUGH HIGH BAY FLEXIBILITY AND SHARED RESOURCE

German Olaya, Architecture49 Inc.
André Beltempo, National Research Council Canada

The objective of this presentation is to discuss the strategic planning and delivery of flexible high bay and shared specialized laboratories as a sustainability, resilience, and stewardship model for federal science infrastructure.

CONCURRENT BREAKOUTS

NOV. 17

STREAM 2: RETROFITS

RETROFITTING FOR RESILIENCE: TRANSFORMING A CONVENTIONAL WAREHOUSE INTO A FUTURE-READY BLOOD PROCESSING AND DISTRIBUTION FACILITY

Yvonne Choe, DIALOG
Robert Mariani, DIALOG
Steve Ekoudi, Canadian Blood Services

The objective of this presentation is to explore how an existing warehouse building was strategically transformed into a future-ready blood processing facility, balancing sustainability, operational resilience, and regulatory requirements through an integrated owner, facilities, and design team approach.

PROTOTYPE FOR RENEWAL: RETROFITTING A 1960S LAB BUILDING

Liam Brown, mcCallumSather
Mary Georgious, mcCallumSather
Mike Ditty, University of Waterloo

The objective of this presentation is to demonstrate how aging laboratory infrastructure can be stabilized and transformed through targeted retrofit strategies that improve energy performance, flexibility, and long-term resilience without requiring full system replacement or operational shutdown.

NO BLANK SLATE: DESIGNING A HIGH-CONTAINMENT PLANT PEST RESEARCH FACILITY IN A 100-YEAR-OLD BUILDING

Maria del Carmen Garcia Maldonado, DFS inc.
Marc-Antoine Chenail, BPA inc.

The objective of this presentation is to demonstrate how high-containment plant pest research facilities can be successfully designed within highly constrained existing buildings, highlighting transferable strategies for delivering advanced laboratories under extreme spatial, regulatory, and operational constraints.

CONCURRENT BREAKOUTS

NOV. 17

STREAM 3A: BUILDING INFORMATION MODELING

WORKSHOP
THE INTERFACE OF BIM AND LAB PROJECT REQUIREMENTS

Victor Lima, Diamond Schmitt

Laboratory projects present uniquely complex demands for BIM, driven by the need to coordinate specialized equipment, stringent performance criteria, and evolving operational requirements. Unlike conventional building typologies, labs require a high level of precision in spatial planning, services coordination, and data management, where even minor discrepancies can impact functionality, safety, and compliance. This session explores the critical interface between BIM processes and the specific needs of lab environments, focusing on practical strategies to enhance clarity, consistency, and value delivery across multidisciplinary project teams.

Participants will examine different approaches to tracking laboratory equipment within BIM, identifying what information is most meaningful to capture. The discussion will highlight how different levels of information can support design decision-making, construction coordination, and long-term operations. The session will also address the definition and standardization of required BIM families. Emphasis will be placed on scalable approaches that can be applied across large, complex, or repeatable lab programs, reducing redundancy while improving data reliability.

A key component of the discussion will be the implementation of ISO 19650, a BIM standard now being adopted across Canada and increasingly required for federal projects. Participants will gain insight into how ISO 19650 frameworks can be effectively integrated into lab projects to align deliverables with client expectations and support long-term asset management goals.

STREAM 3B: IN THE WEEDS

CLEAN ROOM DESIGN CHALLENGES: BRIDGING PERFORMANCE, SUSTAINABILITY, AND INNOVATION IN LIFE SCIENCES

Ruth McMath, RWDI
Dianthé van Weerden, RWDI

The objective of this presentation is to provide actionable insights to support the design of cleanrooms in the areas of ventilation strategies, enclosure design, energy use and air quality control.

CONCURRENT BREAKOUTS

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STREAM 4A: POLICY

FROM POLICY TO PRACTICE: HOW GOVERNANCE, USERS, AND DESIGN SHAPE FLEXIBLE SPECIALIZED LABORATORIES

Leslie Sims, AECOM Technical Services Inc.
Shahin Machhiwala, AECOM Technical Services Inc.
Eda Xhomara, Public Services and Procurement Canada
JP Levasseur, Natural Resources Canada

The objective of this presentation is to illustrate how the national framework for renewal of the research capabilities is being achieved using the TerraCanada NCR project as an example. We will focus on the change management required for the scientists, recognizing that this project is reinventing how they do their work, providing flexibility when laboratories are highly specialized, and working within the national framework established for the renewal of research laboratories across Canada.

FROM POLICY TO PERFORMANCE: DELIVERING LOW-CARBON LABORATORY BUILDINGS IN PRACTICE

Maria Kordjamshidi, Salas O'Brien
Andrea Vickers, Pomerleau Construction

The objective of this presentation is to demonstrate how policy, standards, and procurement frameworks can be operationalized across design and construction to deliver low-carbon laboratory buildings, achieving over 50% GHG emissions reductions. It also identifies key gaps, constraints, and market challenges that must be addressed to translate policy ambition into consistent project outcomes.



CONCURRENT BREAKOUTS

NOV. 18

STREAM 5A: UNIVERSITY INNOVATION

CATALYSTS FOR SUSTAINABLE INNOVATION HUBS: LESSONS FROM THE WATERLOO INNOVATION ARENA

Martin Kristensen, Diamond Schmitt Architects
Rob Hunsperger, University of Waterloo
Raed El-Khatib, Smith + Andersen

The objective of this presentation is to illustrate how coordinated policy incentives can catalyze sustainable innovation hubs, using the Waterloo Innovation Arena to demonstrate how adaptive reuse, net-zero ambitions, and commercialization frameworks translate policy into high-impact research and entrepreneurial infrastructure.

BEYOND THE LABORATORY BOX: DURABILITY AS A CLIMATE STRATEGY AT THE ARCTIC AND ATLANTIC OCEAN CONFLUENCE

Mary Clinton, Memorial University of Newfoundland
Jeff Churchill, HOK
Ami Shah, HOK

The objective of this presentation is to demonstrate how the study of environmental systems at the Arctic–Atlantic Ocean confluence drives the architecture of the Core Science Facility, positioning the building as a durable research platform that extends into an ocean-scale laboratory.



CONCURRENT BREAKOUTS

NOV. 18

STREAM 6A: CODES

WORKSHOP
LABORATORY CODES

Erin McClintock, Principal, LMDG

Details to come.

STREAM 6B: CODE COMPLIANCE IN ACTION

FIRE SAFETY CHALLENGES IN LABORATORY REFITS, RETROFITS, RENOVATIONS, AND BUILDING CONVERSIONS

Audrey Roy-Poirier, ARUP

The objective of this presentation is to outline practical strategies and examples showing how laboratory retrofits can enhance flexibility, resilience, and energy performance while meeting fire safety and code requirements in existing buildings.

DESIGNING AN ANHYDROUS LABORATORY: WHEN HAZARDOUS MATERIALS AND ENVIRONMENTAL REQUIREMENTS DICTATE DESIGN CRITERIA

Rémi Dumoulin, Pageau Morel et associés
Sarah Demers, Phytronix-Ingenio

The objective of this presentation is to illustrate the design of a 140 m2 anhydrous laboratory with a dew point of -35°C, intended to support lithium-ion battery research activities.



CONCURRENT BREAKOUTS

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STREAM 4B: CONTAINMENT AND BEYOND

PANEL
BEYOND CONTAINMENT: HIGH CONTAINMENT LABS, CARBON NEUTRAL READY DESIGN

Jim Chen, Perkins&Will
Guillaume Martel, Provencher_Roy
Georges Maamari, BPA
Mary On, Introba
MODERATOR: Samuel Houle, Perkins&Will

High containment laboratory buildings are historically energy and carbon intensive due to stringent safety requirements, regulatory constraints, and high mechanical demands. In many cases, these factors dominate decision making and limit the ability to achieve innovative sustainability goals.

The RSS Complex project challenges this paradigm. Designed as a carbon neutral ready facility incorporating laboratory spaces up to Containment Level 3 (CL3), the project demonstrates how ambitious sustainability objectives can be pursued within a highly regulated, mission critical environment without compromising safety or functionality. Beyond operational carbon reduction, the project emphasizes future proofing strategies that support a building lifespan of 50–100 years, ensuring adaptability to evolving programmatic needs.

The main facility provides a unique opportunity to assemble specialized scientific capabilities and expertise from four federal departments, enabling a previously unrealized level of interdisciplinary collaboration.

Achieving meaningful progress in this context requires the involvement of the right expertise, supported by a determined owner with a clear project vision. In this panel discussion aligned in some ways with all four of the priority pillars of this year's theme, perspectives will be shared from the owner/client, architects, and engineers who have been collaborating on the project over the past two years to explore the science behind the science spaces of high containment laboratory design. The discussion will also openly address challenges and conflicts encountered along the way, highlighting lessons learned during design that may help others facing similar conditions on their own projects.

CONCURRENT BREAKOUTS

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STREAM 5B: SPECIALTY LABS

DELIVERING SPECIALIZED LABS: ALIGNING CONSTRUCTABILITY, COMPLIANCE, AND SUSTAINABILITY IN CYCLOTRON AND HOT-LAB FACILITIES

Sanel Avdic, Architecture49 Inc.
Greg Aarestad, Ventana Construction Corporation

The objective of this presentation to help the audience understand how delivery strategy and constructability decisions influence sustainability outcomes in high-constraint laboratory projects; recognize the role of early collaboration between builders and scientific users in protecting performance and compliance objectives; and, apply delivery-phase lessons from cyclotron and hot-lab projects to other specialized laboratory and research facilities.

YORK UNIVERSITY NEUROSCIENCE FACILITY: A CASE STUDY FOR MEANINGFUL SUSTAINABILITY ON BUDGET

Somayeh Mousazadeh, HDR
Kurt Monterio, Smith + Andersen
Yen Nguyen, York University

The objective of this presentation is to demonstrate how integrated design enables flexible, future-ready laboratories while avoiding overdesign and controlling cost. The presenters will also show how low-carbon, energy-efficient strategies can meet sustainability, safety, and resilience goals without compromising budget or schedule.



CONCURRENT BREAKOUTS

NOV. 19

STREAM 7: FROM DESIGN TO OPEN

DESIGNING FOR PROOF: TURNING LABORATORY BUILDINGS INTO LIVING EVIDENCE

David Adams, University of Victoria
Esteban Matheus, DIALOG
Daniel Prescott, DIALOG
Moderator: Rishi Nandi, DIALOG

The objective of this presentation is to share how a new zero carbon research facility was intentionally designed to generate actionable performance data for operations, future retrofits, and institutional decarbonization. Demonstration of how embedded monitoring can extend beyond building performance to directly support engineering education and research at UVic.

THE REALIZATION OF THE SCARBOROUGH ACADEMY OF MEDICINE AND INTEGRATED HEALTH

Nigel Tai, Diamond Schmitt Architects
Jeff Miller, University of Toronto

Scheduled to be completed in summer 2026 to welcome new medical students in the new academic year, SAMIH is a unique project that bring Research (science), Practice (healthcare) and Pedagogy (academic) under one roof utilizing various sustainability design features to achieve high performance. The objective of this presentation is to have the design & owner team to discuss the challenges & solutions in implementing these features during construction, and how the building is performing in real life relative to design model since construction complete.



CONCURRENT BREAKOUTS

NOV. 19

STREAM 8: BIOCONVERGENCE PROJECT

FROM "MY LAB" TO SHARED RESEARCH PLATFORMS: PLANNING THE RESEARCH ECOSYSTEM

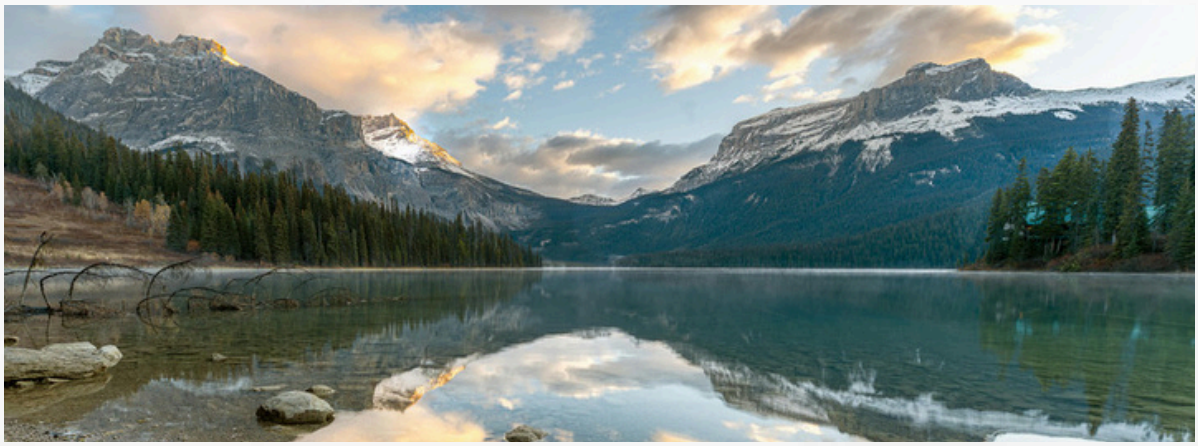
Bryan Neff, Western University
Shrey Chandra, HOK
Randy Kray, HOK
Jeff Churchill, HOK

The objective of this presentation is to explore how convergence science is shaping the organization of research from discipline-based, principal investigator-led laboratories to integrated research ecosystems that balance investigator-led research with shared technology platforms, and to demonstrate how governance and planning strategies can enable adaptable environments for the next generation of scientific discovery.

DECARBONIZING THE CARBON HOG: HIDDEN CARBON IN SCIENCE AND PRACTICAL LESSONS FOR A ZERO CARBON LABORATORY

Kshitij Amodekar, HOK
Biren Singh, Entuitive
Paul Harrison, HOK

The objective of this presentation is to explore how far laboratory decarbonization can realistically go in practice, and to examine the opportunities, trade-offs, and hidden challenges associated with reducing operational and embodied carbon in next-generation research facilities.



KEYNOTE PRESENTATIONS

NOV. 18

NEW PROGRAMS AND BIG UPDATES FROM I2SL

ALISON FARMER
PRESIDENT AND LABS2ZERO PROGRAM DIRECTOR
INTERNATIONAL INSTITUTE FOR SUSTAINABLE LABORATORIES



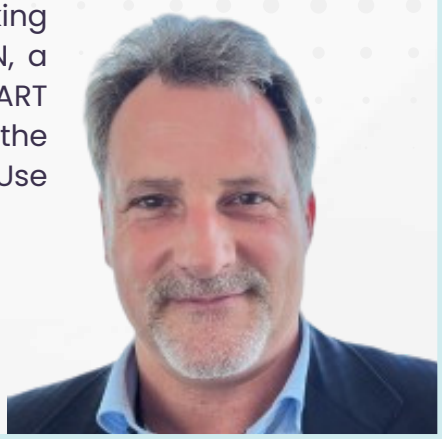
Alison Farmer is leading efforts to improve energy efficiency and reduce operating costs in laboratory buildings worldwide. A former research astrophysicist, Alison has worked in both consulting and lab-owner roles, specializing in HVAC controls, energy analysis, and building performance benchmarking for complex facilities.

INSIGHTS FROM EUROPE

BERND GMEINER, MANAGING DIRECTOR, EGNATON E.V.

Bernd Gmeiner is an expert in digital transformation across the AEC and industrial sectors, with a focus on BIM, open standards, digital twins, and interoperable information workflows. Since January 2025, he has served as Managing Director of EGNATON e.V., advancing sustainable laboratory technology, industry collaboration, and digitalization.

He is spokesperson for the joint Ifc4Lab working group of buildingSMART Germany and EGNATON, a Steering Committee Member of the buildingSMART International Electrical Domain, and leads the CEN/TC 442 WG 3 work item “Framework for Use Cases in BIM.”



PANEL DISCUSSIONS

NOV. 18

A FIRESIDE CHAT WITH LABORATORY ASSOCIATION PRESIDENTS

Join the SLCan, I2SL and EGNATON Presidents as they share updates on their current activities and their vision for the future of their associations. They will also provide an overview of the initiatives that the Associations will be working on collaboratively with the goal of strengthening the global sustainable laboratory community.

KEVIN HUMENIUK, OUTGOING PRESIDENT, SLCAN



Kevin Humeniuk is National Sector Leader, Science and Technology at Architecture49, providing strategic leadership for complex laboratory, research, and regulated facility projects across Canada. He brings extensive experience aligning client objectives, technical excellence, and delivery strategy, enabling high-performing teams to deliver mission-critical science, health, and innovation infrastructure.

DAWN JACOBS, INCOMING PRESIDENT, SLCAN



In July 2023 Dawn Jacobs engaged in a joint venture with BICASA srl to form BICASA North America – a manufacturer of fume hoods and technical laboratory furniture solutions. She is an active member of SEFA, and former board member. Dawn is also an active member of I2SL, as well as the NC Triangle, St Louis and Greater LA Chapters. Dawn is a My Green Lab Ambassador and has deep-rooted beliefs in sustainable manufacturing.

BERND GMEINER, MANAGING DIRECTOR, EGNATON



Bernd Gmeiner is an expert in digital transformation across the AEC and industrial sectors, with a focus on BIM, open standards, digital twins, and interoperable information workflows. Since January 2025, he has served as Managing Director of EGNATON e.v., advancing sustainable laboratory technology, industry collaboration, and digitalization.

ALISON FARMER, PRESIDENT, I2SL



Alison Farmer is President of the International Institute for Sustainable Laboratories (I2SL) and Program Director of its Labs2Zero initiative, leading efforts to improve energy efficiency and reduce operating costs in laboratory buildings worldwide.

A former research astrophysicist, Alison has worked in both consulting and lab-owner roles, specializing in HVAC controls, energy analysis, and building performance benchmarking for complex facilities.

PRESENTER DIRECTORY

THANK YOU TO ALL OF THE PRESENTERS FOR SHARING THEIR EXPERTISE, EXPERIENCE AND INSIGHTS. THANKS AS WELL TO THEIR EMPLOYERS FOR SUPPORTING THIS INFORMATION EXCHANGE.

- Greg Aarestad, Ventana Construction Corporation
- David Adams, University of Victoria
- Sameh Aly, Architecture49 Inc.
- Kshitij Amodekar, HOK
- Sanel Avdic, Architecture49 Inc.
- André Beltempo, National Research Council
- Anna Bendix, McGill University
- Liam Brown, mcCallumSather
- Shrey Chandra, HOK
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- Paul Harrison, HOK
- Samuel Houle, Perkins&Will
- Kevin Humeniuk, Architecture49
- Rob Hunsperger, University of Waterloo
- Dawn Jacobs, BICASA North America
- Maria Kordjamshidi, Salas O'Brien
- Janet Koshuta, START Architecture Inc.
- Randy Kray, HOK
- Pradosh Krishnamoorthy, WSP
- Martin Kristensen, Diamond Schmitt Architects
- Yvon Lachance, YLA Architecture
- Sylvain Letarte, Ingenio by Phytronix
- JP Levasseur, Natural Resources Canada
- Victor Lima, Diamond Schmitt
- Georges Maamari, BPA
- Shahin Machhiwala, AECOM Technical Services Inc.
- Robert Mariani, DIALOG
- Guillaume Martel, Provencher_Roy
- Esteban Matheus, DIALOG
- Erin McClintock, LMDG
- Ruth McMath, RWDI
- Jeff Miller, University of Toronto Scarborough
- Kurt Monterio, Smith + Andersen
- Somayeh Mousazadeh, HDR
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- Daniel Prescott, DIALOG
- Audrey Roy-Poirier, Arup
- Ami Shah, HOK
- Kevin Shea, BPA Inc.
- Kevin Shelast, Aqua Air
- Leslie Sims, AECOM Technical Services Inc.
- Biren Singh, Entuitive
- Nigel Tai, Diamond Schmitt Architects
- Peggy Theodore, Diamond Schmitt Architects
- Magali Tremblay, Pageau Morel & Associés Inc.
- Dianthé van Weerden, RWDI
- Andrea Vickers, Pomerleau Construction
- Eda Xhomara, Public Services and Procurement Canada

Thank you!

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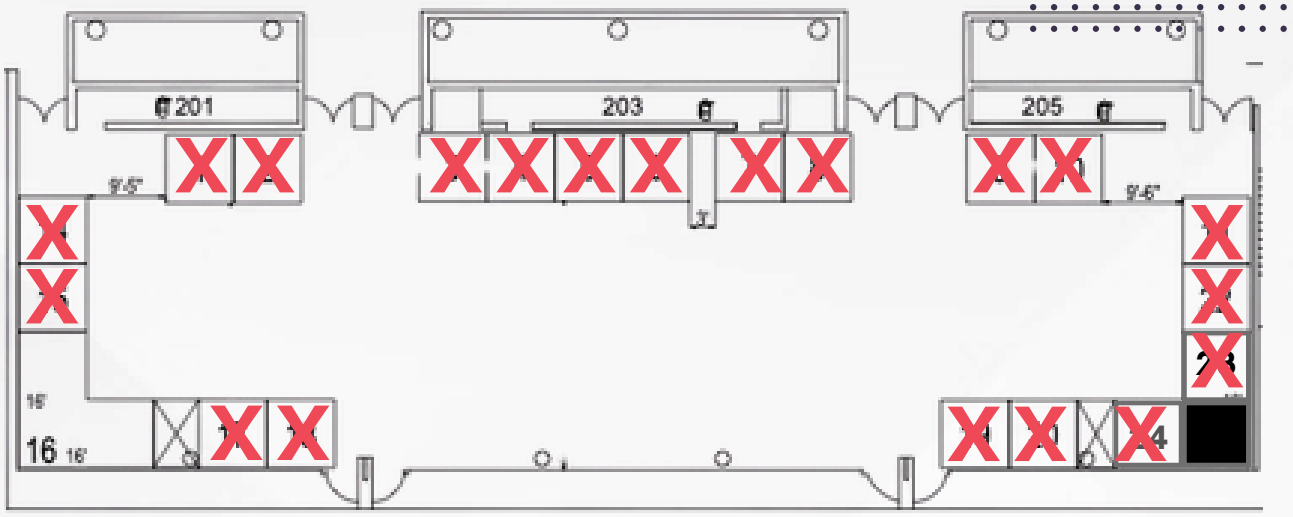
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Booth 7	Architecture49 Inc.
Booth 8	Camfil Canada Inc.
Booth 9	Ingenio/Phytronix
Booth 10	BICASA North America
Booth 11	Plastec Ventilation
Booth 14	ARUP
Booth 15	Hodess
Booth 17/18	Aqua Air Systems Ltd.
Booth 19	Formica Corporation
Booth 20	SmartSash Inc.
Booth 22	Bedcolab
Booth 23	Vaisala, Inc.
Booth 24	Danfoss

NOT ON THE LIST? DON'T WAIT!
EMAIL US AT INFO@SLCAN.CA

NETWORKING EVENTS

OPENING RECEPTION IN THE TRADE SHOW

THANK YOU TO AQUA AIR SYSTEMS FOR THEIR SUPPORT!

Join us in the trade show as we kick off the 2026 Conference!

AWARDS DINNER AND RECEPTION

Just 10 minutes from downtown Banff, guests will be in awe the moment they arrive at Banff Park Ranch. Sweeping 360-degree mountain views and lush forest encircle the grounds steeped in historic Banff charm.

Head into the roundhouse, where a massive roaring fire awaits!

A Western buffet, featuring a house-smoked Alberta hip of beef, baked whole salmon and homestyle sides, will be served alongside locally crafted spirits and beers.

