2019 **Sustainability Action Plan** Improving Communities Globally







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MECHANIZED RIVER VALLEY ACCESS - EDMONTON, AB

For this project, the team limited the project's ecological footprint in the valley, both in terms of the physical footprint and the selection of sustainable building materials. For example, Kebony wood was used, which has a much longer life than conventional pressure-treated wood, and uses a treatment compound that is more environmentally friendly than pressure-treated wood. The foundation system was selected to minimize earthwork required on the slope, and minimize cutting into the slope.



WE ARE PASSIONATE ABOUT DESIGN WE BELIEVE IT CAN AND SHOULD MEANINGFULLY IMPROVE THE WELLBEING OF OUR COMMUNITIES AND THE ENVIRONMENT WE ALL SHARE

() 1 Introduction

OUR VISION

At DIALOG, we are passionate about design and believe we can-and should-meaningfully improve the wellbeing of the communities and the environment we all share. We aspire to be known for design excellence. At DIALOG this is defined as design that seamlessly combines aesthetics with function and sustainable design.

DIALOG strives to be a leader in sustainability—to be at the forefront of driving much-needed change in the building industry, positively transforming the communities where we work and advocating for policy change. We are determined to embed sustainability throughout our culture, making it an essential part of every project and how it operates.

DIALOG is a multidisciplinary firm that recognizes integrated design is essential to addressing the world's most pressing problems. For us, this means staying agile, focusing on sustainability and leveraging diverse talents in the firm.



A collaboration between Snøhetta and DIALOG, the new Central Library for the Calgary Public Library system realizes the city's vision for a technologically advanced public space for innovation, research and collaboration. Sustainability features include a high performance building enclosure, underfloor air delivery and an abundance of natural light.

NEW CENTRAL LIBRARY - CALGARY, AB

To achieve this vision, **DIALOG** has established these strategic objectives:



Evaluate and improve the design process to ensure projects can achieve the highest possible level of environmental design Cultivate awareness and commitment to environmental sustainability among all staff

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> Provide sustainable design knowledge, skills and resources to all disciplines and sectors, complemented by developing experts in key areas



Work with clients to establish common goals and support them to be part of the solution, bringing them on board with DIALOG's passion and expertise



AMS NEST, UNIVERSITY OF BRITISH COLUMBIA STUDENT UNION BUILDING - VANCOUVER, BC

The UBC Sub was a stand-out project both in terms of environmental sustainability and client engagement - the 60,000 students. An insitu 'design cube' allowed students to engage with the process and let their voices be heard. The resulting design of mostly FSC certified wood construction utilised radiant heating and cooling, displacement ventilation with heat recovery, solar thermal, occupancy and daylight sensors, rainwater capture and significant portable water reduction to earn LEED[®] v1 Platinum.

néca?mat CT STRATHCONA BRANCH LIBRARY AND YWCA CAUSE WE CARE HOUSE - VANCOUVER, BC

Sustainable projects go beyond a good envelope, mechanical systems, and material choices, they also support liveable, walkable, communities to enable people and the environment to thrive. The project does just this with a library, communal garden, internet access areas, flexible community spaces, and apartments for single mothers and families all within a beautiful LEED[®] v3 Gold building.

$\bigcup \angle$ **Design Approach** and Frameworks

OUR APPROACH AND PHILOSOPHY

specifically:

- competitive advantage
- available

DIALOG promotes a design culture and process that is multidisciplinary, integrated, collaborative, goal-oriented and metric-driven. More

• Early in the design of projects, we build teams with a diversity of expertise and promote collaboration and sharing of ideas. Integrated design is an essential aspect of DIALOG's ethos and our

• DIALOG recognizes the power of data and analysis to influence the early design process. This requires working with the best tools

• DIALOG adopts a holistic systems-thinking approach to ensure sustainable design strategies become integral to the design process



COMMUNITY WELLBEING FRAMEWORK

The Framework provides easy-to-use approaches to incorporating design features that contribute to community wellbeing. It's also a methodology for assessing and measuring wellbeing in a systematic way across DIALOG's work-no matter the size, sector or discipline.

2030 COMMITMENT

DIALOG is a signatory to the AIA 2030 Commitment. The 2030 Energy Use Intensity targets provide a clear framework with simple metrics for achieving carbon neutrality across our entire portfolio by 2030.

COTE FRAMEWORK

DIALOG has also begun to utilize the AIA Committee on the Environment (COTE) Top Ten Measures as a framework for evaluating, tracking and setting targets on a comprehensive suite of other sustainability metrics. Currently this is being tested on more progressive projects, with the objective of uniformly incorporating the framework into every project design process across DIALOG's portfolio in the next two years.

DIALOG focuses on community integration and improvement in our design work. Recently we decided to consolidate our approach by developing the Community Wellbeing Framework, an evidence-based methodology, to draw attention to, and measure how, design can promote community wellbeing. The Framework is the result of a two-year collaborative research initiative with the Conference Board of Canada.

ENERGY ENVIRONMENT AND EXPERIMENTAL LEARNING BUILDING (EEEL) UNIVERSITY OF CALGARY - CALGARY, AB

10 TOP IN 1919

A LEED v1 Platinum building, EEEL is the administrative centre point for the Institute for Sustainable Energy, Environment and Economy at the University of Calgary. In addition to a high-performance envelope with triple glazing, the building features radiant floor and ceiling systems, and earth tubes to heat and cool the main theatre.





DIALOG's sustainability database allows employees to keep track of Energy Use Intensity (EUI), Lighting Power Density (LPD) and energy modelling status for projects nationwide. Keeping score is transforming the design process toward more energy-efficient buildings.

You play a different game when someone is keeping score.

- Chris McChesney

Evaluation and Reporting

To realize our vision of becoming an innovator in sustainability, we have developed tools to allow us to track, report, evaluate and ultimately improve the performance of our designs based on key sustainability metrics.

SUSTAINABILITY DATABASE

DIALOG has developed an interactive database that allows us to capture, analyse, and visualise the predicted performance data for all design projects. This database allows employees to keep track of Energy Use Intensity (EUI), Lighting Power Density (LPD) and energy modelling status for our projects nationwide. Keeping score is transforming the design process and keeping us accountable as we move toward more energy-efficient buildings. Planned updates and refinements to the database will continuously improve its performance and extend its reach.

METRICS FOR PROJECT REPORTING

In addition to tracking EUI and LPD, DIALOG is committed to setting reduction targets for these metrics based on the AIA 2030 Commitment. We plan to incrementally raise these targets from year to year and across all portfolios to achieve carbon neutrality by 2030.

New metrics including water use, operational and embodied carbon, Walk Score and healthy materials will be tracked comprehensively across the firm in the next five years.

MACKIMMIE TOWER AND BLOCK - CALGARY, AB The Mackimmie Tower and Block at the University of Calgary is part of the Canada Green Building Council's Zero Carbon Pilot Program. Innovative strategies include a double-skin facade with active shading systems, building-integrated renewable energy generation, high thermal mass construction, daylighting, active and passive natural ventilation and leveraging of the University's district energy systems. a



WALTERDALE BRIDGE REPLACEMENT - EDMONTON, AB

Walterdale Bridge is designed to last for at least 100 years and is the most complex infrastructure project ever completed in Edmonton. The elegant arch bridge spans the river from bank to bank eliminating bridge piers from the river. Environmental impact reduction strategies included managing and monitoring impacts during construction, planting to address tree compensation and riverbank armouring enhancement.

() 4Outreachand Advocacy

CONFERENCES

DIALOG staff regularly present their innovation and research in sustainable design at green building conferences across North America. Topics presented include advanced building analysis, regenerative design, net zero buildings and campuses, certified green building projects and healthy materials. These topics represent our sustainability expertise in many facets of the built environment.

CLIENTS

Many clients choose to work with DIALOG because of our track record in delivering exceptional projects in sustainable design. However, in sectors where clients are traditionally more profit-driven, DIALOG is working to demonstrate the business case for building sustainably. Our clients learn that improving energy performance also provides a better occupant experience, thus increasing productivity and/or resale value. In some cases, high performance building requires an initial, increased investment, but paybacks occur in terms of reduced operating energy, better occupant experience and reduced time to lease the space.



The Beakerhead Festival in Calgary is an annual five day mash-up of art, engineering and science. In 2018 DIALOG contributed the Treetor Totter, a whimsical urban landscape that explores nature in balance.

BUILDING SECTOR

DIALOG supports emerging and established building professionals both through close ties with academic institutions and by serving on local and national industry associations. We have ties to design faculties in cities where we have studios. One outcome of these relationships is the annual Tom Sutherland Design Residency for selected students from across Canada, scholarships for worthy students and research projects with individual universities.

At DIALOG we strive to influence our peers, our industry and the broader community. We advocate for regenerative policies and support sustainable practices. For example, we recently signed an open letter calling for material transparency and an increased commitment within the building industry toward specifying more certified and healthy materials.

COMMUNITY

People at DIALOG often pitch in and support our communities' environmental efforts at various scales. Examples of our involvement include Earth Day clean ups in Toronto and Vancouver, participating in the City of Edmonton Parks' clean up, coat and blanket drives for those in need, fundraising and volunteering at the food bank, contributing to Calgary's annual art, science and engineering extravaganza Beakerhead, organizing public salons about the future of urban mobility, and supporting transit expansion campaigns in Vancouver.

ARTHUR MEIGHEN BUILDING REHABILITATION (AMBR) - TORONTO, ON - CaGBC PILOT PROJECT -ZERO CARBON BUILDING STANDARD

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The project is a deep green retrofit of a 1950s office building including the insulation of the existing façade, maintaining the original timber structure, installation of new LED lighting and over 100kW of new solar PV on the roof. The new building is projected to generate 80% less GHG emissions annually than the pre-existing structure.





ROBINSON FAMILY FOREST - SAINT JOHN RIVER VALLEY, NB

Sustainability is our ecological for

ENVIRONMENTAL IMPACT

DIALOG's operations have been carbon neutral since 2012. We partner with Community Forests International to offset our carbon footprint from our building facilities and business travel, using the international Greenhouse Gas Protocol. Staff-run grassroots-driven initiatives are a feature of every studio's efforts to reduce its carbon footprint. In 2019, we are formalizing our carbon reduction strategies by introducing SMART carbon reduction targets.

Regional energy sources influence the carbon footprint of each studio. To address this disparity, each studio has a different focus to reduce its footprint. In Vancouver, where a clean electricity grid exists, the focus is on reducing air travel. The studio in Edmonton, where there is a dirty energy grid, is focused on tracking and reducing its use of electricity and natural gas for operations.

DIALOG is aware that, despite being outside of our offset scope, every pen purchased, shower taken, lunch ordered, or office renovation comes with an environmental footprint. Each studio has a different context and culture, so each has developed its own sustainability approach, including green building certified offices, catering policies, waste audits or utilizing the CaGBC ARC platform to track and visualize utility use.

Internal Operations and Culture

Sustainability is at the core of DIALOG's culture. We strive to diminish our ecological footprint from operations and to cultivate our staff's passion for sustainable design.



CULTURE

Every DIALOG studio has a Green Team whose members are ardent advocates for sustainability. The Green Teams have been the drivers behind some of the most radical transformations at DIALOG, including informing our firm's vision or "why" statement, the establishment of green grants, implementing our sustainable purchasing policy and waste reduction programs, working with building managers on analyzing energy use, and raising staff awareness of urgent environmental catastrophes around climate change, biodiversity loss and plastic pollution.

At a national level, our Green Practice Roundtable has an agenda to raise DIALOG's game when it comes to green building. This group was responsible for DIALOG's joining the AIA 2030 Commitment. Its mandate is to improve the performance of all projects and reduce our operational footprint.

EDUCATION

We are committed to advancing the education of our staff. Each DIALOG studio runs a green building accreditation program in addition to offering courses related to high performance building. Currently, 25% of all project staff are accredited. We have set a goal for 2020 of 50% of design and technical staff obtaining accreditation in green building certifications such as LEED[®], WELL, Passive House, SITES or ENVISION.

Informal studio pin-ups supplement sustainability education with case study discussions of current project work. Participation in net zero design competitions is another avenue for improving our knowledge of design for high performance buildings.

DIALOG Vancouver Studio, Vancouver, BC

Aligned Floor Covering • Allmar Inc. • ASSA ABLOY • Benjamia Moore & Co Limited • Bulfred Power Inc. CASSEN Testing Laboratories • Certain Teed Gypsum & Insulation • CES Engineering Ltd. Douglas Lighting Controls • Dudoc Vancouver • Erv Parent Co. Ltd. • Forbo Elocing Systems • Prod Weah Ltd. Haworth Inc. • Heritage Office Furnishings • Integral Group • KD. Engineering Co. • Knauf Insulation Maharam • MechoShade Systems, Inc. • Northwest Sheet Metal LTD. • Oxford Properties Group • Prictin West Ltd. Planters Perfect • Power Pros Electrical Ltd. • Shaw Contract Group • Smart Office Solutions Smoothcuts Painting & Finishing • Steelcase • SUPERIOR ESSEX • Teknon-Upper Canada Forest Products • Winwood Construction Ltd. • Woodrose Woodroking the

CaGBC OFFICE - VANCOUVER, BC

The Canada Green Building Council's new Vancouver office was the first LEED v4 Commercial Interior project to achieve the highest level of certification, Platinum level. It was purposefully located in a highly walkable and bikeable area, in a LEED v3 Gold building. The project features low-flow water fixtures, highly efficient lighting, and selected materials with certificates declaring their environmental impacts and raw material sourcing practices.



KENNEDALE ECO STATION - EDMONTON, AB

This national CaGBC Green Building Excellence Award winning project includes an integrated use of solar PV panels and vertical geothermal wells for building cooling; a private outdoor amenity area for staff respite; and an integrated approach to incorporating the City's requirement for 1% for public art. Low Impact Development (LID) strategies included site grading design that keeps water on site, bio-swales for directing rainwater, and a vegetated storm water management pond.

Business Strategy

There is a close fit between DIALOG's vision for improving the wellbeing of communities and the environment, and our Strategic Framework for 2019-21. Both are predicated on creating a built environment that is sustainable.

DIALOG aims to design solutions that address issues of climate change in every project, engaging with communities, clients and fellow professionals. The business strategy to achieve this includes:

- Vision

- approaches
- leaders

• Focus business development on work that has a significant positive impact on community wellbeing and the environment

• Work consistently at earning a reputation that demonstrates our

• Assemble, enable and align talent to deliver the Vision, retaining and recruiting people who share DIALOG's values

• Focus on clients who align with our Vision

• Improve practice and collaboration, striving for consistency where it's essential and at the same time fostering a diversity of

• Create an atmosphere where great design is inspired by collaboration, aspiration, diversity and optimism

• Attract entrepreneurial and ambitious leaders, and promote internal

BILL FISCH FOREST STEWARDSHIP & EDUCATION CENTRE (BFFSEC) WHITCHURCH-STOUFFVILLE, ON

The BFFSEC is a project that answers a question:

What if a building could function like the forest that surrounds it? BFFSEC is DIALOG's first Net-Zero Energy and Net-Zero Water building and the first fully certified Living Building Challenge project in Canada.



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SENECA COLLAGE | TORONTO, ON

The Seneca College 'A Plus' building was designed to provide a high quality learning environment that is also modern and efficient. The building is LEED v3 Gold certified and uses skylights to bring natural light into the atrium.



DIALOG has a unique horizontal governance model, where all major decisions require consensus among our Principals. This means that adoption of national policy only occurs with firm-wide buy-in. Building consensus encourages good ideas from many voices, helps drive innovation, and ultimately results in widespread support. This process for implementing aggressive targets and ambitious goals takes more work, but once in place, the transformation is profound.

As a multidisciplinary design firm, we recognize our responsibility to diminish the impact and enhance the regenerative potential of the projects we design. DIALOG is developing the capacity to successfully carry out deep green design on key projects within multiple typologies and across all disciplines.

Everyone at DIALOG is keenly conscious of the urgent environmental issues that we all must confront in the coming years. At the same time we look forward to finding unique solutions along with our clients, peers and the communities where we work, in ways that will allow DIALOG to stand proud in the eyes of future generations.



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