

FIRM PROFILE

GF Shymko & Associates is an award-winning multi-disciplinary engineering firm specializing in energy and environmental performance and sustainable building design.

As environmental awareness increases in the building industry, so does the need for specialists who can push building performance to a higher level. Energy, environmental and sustainability consulting has emerged as a new discipline that adds an important dimension to the traditional building design team.

Conventional buildings are the result of design processes which are usually less than ideal. Each design discipline tends to work within its own realm, seeking design solutions within its own paradigm. The pursuit of higher building performance usually takes the form of an expensive layering of technological fixes which really do not address performance issues at the fundamental level. GF Shymko & Associates has the broad technical foundation in all disciplines necessary to understand how building systems work together and how to integrate the pieces into an optimized whole building. We provide two services to the design team: technical expertise in energy and environmental issues, and facilitation of better design integration between all the disciplines. The common term for this approach is Integrated Design Process, or IDP.

Our mission at GF Shymko & Associates is well-designed, highly efficient, cost-effective and sustainable buildings. Our basis is technical, but our focus is on design — we believe that money is better spent on careful design than on the latest technological trend. Our philosophy is that technology should support the fundamental design process, not lead it.

Our staff has a long and successful history in energy efficient and environmentally responsible design. This track record has earned wide respect in the industry and numerous awards at the national level.

We offer these services for commercial and institutional buildings:

New Building Design

We provide a full range of multi-disciplinary advisory services in advanced or sustainable building design. We are pioneers in using computer simulation as a dynamic design tool. Our services include:

- Developing project performance goals and parameters
- IDP Design Facilitation
- Energy and sustainability engineering
- Advanced building simulation
- LEED® design and coordination
- Green Globes consultation and certification
- Building rating systems development
- Assistance with government and utility green building programs
- Innovative HVAC research and design
- Renewable energy technologies

Improvements to Existing Buildings

We examine facilities for cost savings opportunities or for problem resolution, including:

- Energy analysis and retrofit planning
- Environmental performance assessments
- Indoor air quality diagnosis and remediation

Energy Performance Contract (EPC) Advice

Many building owners who have been approached by EPC providers would benefit from independent review and advice at all phases of the project, from concept to monitoring and verification. Our staff's direct experience in the EPC field allows us to offer these valuable advisory services.

For Government and Utility Groups

We can provide a variety of skills and services to assist in DSM and sustainability planning and program development and deployment.

REPRESENTATIVE PROJECTS

Innovative Design and Analysis

Calgary South Health Campus, Calgary AB

A LEED® Silver Project (under final construction).
Largest LEED® Canada project to date (180,000 sm).
Energy engineering and simulation addressing all aspects of the architectural and building systems.

Life Sciences Centre, University of BC, Vancouver BC

A CBIP and LEED® Gold Project.
BOMA Earth Award, 2005.
Design facilitation and engineering addressing all aspects of energy performance of the architectural and building systems.

Surrey District Education and Conference Centre, Surrey BC

A LEED® Gold Project.
Energy engineering and simulation addressing all aspects of the architectural and building systems, including geothermal heating and cooling.

University College of the North, Thompson MB

A LEED® Gold Project.
Energy engineering and simulation addressing all aspects of the architectural and building systems.

Broadway Technology Centre, Vancouver BC

LEED® Silver and Gold
Energy engineering and simulation addressing all aspects of energy performance of the architectural and building systems of a multi-building office complex.

Government of Canada Building, Yellowknife, NT

A LEED® Silver Project.
Canadian Poster Project Entry, International Green Building Challenge, 2005.
Design facilitation and engineering addressing all aspects of energy performance of the architectural and building systems.

Central Alberta Cancer Centre, Red Deer AB

LEED® Silver (under construction)
LEED® consulting and coordination.

Watson Lake Hospital, Watson Lake YK

LEED® Silver (under construction)
LEED® consulting and coordination.

Red River Community College Downtown Campus, Winnipeg MB

A CANMET C-2000/CBIP Project.
One of three Canadian Entries in the International Green Building Challenge, 2002.
Design facilitation and engineering under the C-2000 and CBIP programs, addressing all aspects of energy, environmental and functional

performance of the architectural and building systems of a redevelopment of a historical site.

Mayo School, Mayo YT

A CANMET C-2000/CBIP Project.
One of three Canadian Entries in the International Green Building Challenge, 2002.
Design facilitation and engineering under the C-2000 and CBIP programs, addressing all aspects of energy, environmental and functional performance of the architectural and building systems.

Yukon Energy Corporation Head Office, Whitehorse YT

A CANMET C-2000/CBIP Project.
Canadian National Energy Efficiency Award, 1999.
Design facilitation and engineering under the C-2000 and CBIP programs, addressing all aspects of energy, environmental and functional performance of the architectural and building systems.

Alice Turner Public Library, Saskatoon SK

A CANMET C-2000/CBIP Project.
Finalist, Canadian National Energy Efficiency Award, 1999.
Design facilitation and engineering under the C-2000 program, addressing all aspects of energy, environmental and functional performance of the architectural and building systems.

Building 8, Crestwood Commercial Park, Richmond BC

A CANMET C-2000 Demonstration Project.
Finalist, Canadian National Energy Efficiency Award, 1999.
BC Hydro Award of Excellence, 1996.
Conceptualization, design development, and energy optimization of advanced-technology architectural and building systems for an office complex.

Canada Games Centre, Whitehorse, YK

A CBIP Project.
Design facilitation and engineering under CBIP, addressing all aspects of energy performance of the architectural and building systems including innovative integrated ice plant and HVAC systems.

John G. Diefenbaker Air Terminal, Saskatoon SK

A CANMET C-2000/CBIP Project.
Design facilitation and engineering under CBIP, addressing all aspects of energy performance of the architectural and building systems including post-design C-2000 evaluation.

College of Kinesiology, University of Saskatchewan, Saskatoon SK.

A CBIP Project.

Design facilitation and engineering addressing all aspects of energy performance of the architectural and building systems.

Richmond City Hall, Richmond BC

A CBIP project.

Design facilitation and engineering addressing all aspects of energy performance of the architectural and building systems of a high tech office and call centre.

Grandin Green Condominium Complex, Edmonton AB

A CMHC/CBIP Project.

Energy and environmental engineering of a "green" high-rise housing complex under the CBIP program.

Agriculture Canada PARC Research Facility, Agassiz BC

Expert review and concept design of a groundwater heat pump system utilizing Aquifer Thermal Energy Storage (ATES) (under construction)

Boeing of Canada, Murray Park Plant, Winnipeg MB

Conceptualization, design development and energy optimization of largest groundwater heat pump HVAC system in North America at time of installation.

NRC Science Place Canada, Winnipeg MB

Passive solar design and general energy optimization of building systems. First major project in Canada to utilize DOE computer energy simulation.

Keystone Centre Expansion, Brandon MB

Design of mechanical systems and energy-efficient ice plant for the largest combined multi-use sports, convention and agri-expo complex in Canada, including the first supercharged ammonia heat recovery ice plant designed and installed in Canada.

Energy Auditing and Energy Conservation Retrofits

City of Saskatoon Pilot EPC Projects, Saskatoon SK

Technical, financial, and contractual advisory services to the City of Saskatoon for a pilot EPC project for five recreational facilities.

Thompson General Hospital, Thompson MB

Regina Public School District EPC, Regina SK

Brandon General Hospital, Winnipeg MB

Concordia General Hospital, Winnipeg MB

Price Waterhouse Building, Vancouver BC

Fairview Centre Office Complex, Vancouver BC Prime Capital Building, Vancouver BC

Fairview Point Office Tower, Vancouver BC

Department of National Defence Base, North Bay ON

Department of National Defence Base, Cold Lake AB

Geothermal and Other Alternative Energy Projects

Surrey District Education and Conference Centre, Surrey BC

Groundsource heat pump system.

South Okanagan Secondary School, Kelowna BC

Groundwater heat pump system.

Adams Road Elementary School, Surrey BC

Groundsource heat pump system.

Heritage Mountain Middle School, Coquitlam BC

Groundsource heat pump system.

Agriculture Canada PARC Facility, Agassiz BC

Groundwater heat pump with ATES.

Bristol Aerospace Plant, Winnipeg MB

Groundwater heat pump.

Boeing of Canada, Murray Park Plant, Winnipeg MB

Groundwater heat pump.

Concordia Hospital, Winnipeg MB

Groundwater heat pump.

Over 20 Public Schools, Manitoba, Ontario and BC

Groundwater and groundsource heat pumps.

Specialized Projects

Green Building Challenge, SBTool

Ongoing development of energy and environmental performance assessment criteria for an international competition and showcase of sustainable building projects.

Green Globes ANSI Standard

Development and technical review of energy and environmental performance assessment criteria for the Green Globes ANSI standard.

BEPAC

Pilot testing, final development and national implementation of the Building Environmental Performance Assessment Criteria program for commercial buildings. National and BC sponsors.