Delivering hands-on expertise in building performance

Buildings/
Building Sciences/
New Development
Buildings are complex systems interacting and reacting to their surroundings. With skins that provide environmental separation and skeletons that provide stability and flexibility, buildings require experts who understand the full life cycle – how they are constructed, operated and problems that may arise. WSP's experts understand how buildings fail and are able to provide integrated design, from structural to roofing and façade engineering, that addresses potential risks before they become problems. We work closely with construction professionals to deliver a building that meets your performance and sustainability objectives.

With utilities and maintenance as the highest costs over a building's life cycle, the need for an expert consultant to develop a robust strategy is of utmost importance. Combining durability, constructability, future maintenance, repair and renewal, WSP engineers design technical and business solutions for a sustainable building. Whether you are an architect, portfolio manager, facility manager or end user, our scope of services and involvement can vary as required to meet your needs, from trusted advisors or leading a project design team from project inception to close out.

**Expertise gained from repair, renewal and rehabilitation**

Building enclosures are multi-faceted and complex. Understanding enclosures requires knowledge of materials, components, assemblies, finishes, fabrication, installation and interaction between building architecture, structure, mechanical and electrical (M&E) systems. WSP has the lessons learned from our extensive experience with repair and renewal of existing construction that gives us a strong background for delivering comprehensive new construction design solutions to deliver long-term performance – saving you money over the life your investment.

**Local knowledge with extensive global reach**

Building enclosures must be designed specifically for the service considerations of each distinct climatic region. With specialists across Canada, we offer you access to engineering expertise wherever you need it and we also collaborate with a strong contingent of WSP's enclosure engineers around the world.
At WSP, we are dedicated and passionate about sustainable and efficient buildings and have delivered award-winning projects across Canada. Our integrated design approach means our building sciences experts work closely with WSP’s sustainability, M&E and operational consultants to provide our clients with the very best in green technology, engineering and operational solutions.

A Canadian leader in green building design

Our unique understanding from beginning to end allows us to influence all aspects of design, construction, operations and maintenance.

A complete understanding of the building life cycle

Cover / Clear Spirit and Gooderham Condominiums, Toronto, ON
01 / Surrey Works Yard, Surrey, BC
02 / Studio Bell, Home of the National Music Centre, Calgary, AB
03 / Humber River Hospital, Toronto, ON
04 / Minto Recreation Complex - Barrhaven, Ottawa, ON
WSP™ is one of the world’s leading professional services consulting firms. We are dedicated to our local communities and propelled by international brainpower. We are technical experts and strategic advisors including engineers, technicians, scientists, project managers, planners, surveyors and environmental specialists, as well as other design and program management professionals. We design and deliver lasting solutions in the Buildings, Transportation, Infrastructure, Oil & Gas, Environment, Geomatics, Mining, Power and Industrial sectors as well as project delivery and strategic consulting services. With over 7,500 talented people across Canada and 36,000 globally, we engineer projects that will help societies grow for generations to come.
Driving innovation and lowering costs

Buildings/
Sustainability & Energy
Main Services

**SUSTAINABILITY STRATEGY**

- Strategic planning
- Management system design and implementation
- GHG and resource management
- Program design and strategic planning
- Supply chain management
- Public reporting and communications
- Climate preparedness

**GREEN BUILDING BENCHMARKING**

- LEED®/WELL/BOMA/Green Globes certification management
- Green building/Portfolio benchmarking
- Tenant engagement and partnership program
- Green to Great® performance tracking and reporting
- Integrated design management
- Daylight modelling
- Green education program

**BUILDING PERFORMANCE**

- Building commissioning
- Energy management planning
- Integrated energy assessments, including energy audits
- Retro-commissioning (ReCx)
- Operator training
- Building energy simulation
- Energy incentives consulting
- Performance measurement and verification
- Renewable energy analysis
- Carbon assessments/accounting
- Building automation system consulting services

Proven expertise in helping you reach your sustainability goals

Whether your goal is to improve the bottom line, drive innovation in your organization, or enhance your reputation in the market, our Sustainability and Energy team has the people and the processes to help you succeed. From unlocking the right opportunities for cost reduction to creating brand value, to mitigating risk across the value chain, we work to help our clients build resilient organizations and assets that are equipped to thrive in a fast-changing global market. Operating at the intersection of science, engineering, and strategic management, we can ensure your operations are future-proof. The three main solutions we provide to clients are:

**Corporate Sustainability Strategy**

We help business leaders navigate the sustainability landscape and build more resilient organizations. We develop and implement management strategies, benchmark performance, communicate success, quantify GHGs, and create climate preparedness plans. Our strategy services are complemented by a wide range of technical expertise within WSP. Our reputation is built on a business-focused change management approach, underpinned by technical excellence.
Building Benchmarking
We work with building designers, owners and managers on existing and new buildings. We manage certification processes for programs including LEED, WELL and BOMA BESt. In addition, we work at individual buildings on custom solutions and deliver portfolio-wide programs focused on standardization and economy.

Building Performance
Our team focuses on delivering optimal performance from buildings, performance measured in terms of reliability, maintainability, energy efficiency and durability. With a team that has backgrounds in design, management, operations, and construction, we ensure owners receive the full value from their investment in building systems.

Why WSP?
WSP understands sustainability and how it can influence business opportunities. We can help embed sustainability into your business, your plans, and your capital projects in ways that address risks and drives growth. Our team of engineers, planners, management consultants and communications experts can develop and implement strategic plans and management systems as well as design and manage capital projects.

You don’t want surprises. We have the experience and the qualifications to give you the best, most reliable solutions.
- We have certified more LEED buildings than any other team in Canada.
- We have been commissioning buildings for 20 years.
- Our team knows sustainability from the inside as we lead the WSP sustainability program.

You want best-in-class expertise. As industry leaders, we are consulted on legislative changes, the development of new building standards and rating systems, and the introduction of new technologies and processes.
- We developed the LEED-EB:O&M (Existing Buildings: Operations and Maintenance) and LEED-NC (New Construction) rating systems for the Canada Green Building Council.
- We have worked with BOMA Canada to review the BESt program for relevance, quality, consistency and market applicability.
- We are on the GRESB Infrastructure Global Technical Working Group.
- We are backed by a strong global team with an international portfolio of award-winning projects.

You want consistency across Canada. We have a national team with local leaders in all major cities in Canada. Local leaders understand the unique drivers of each location; our national Service Excellence program is a knowledge sharing platform that distributes information and processes to all team members. In this way, we deliver a consistent, leading-edge, regionally-tailored product in all markets.

Our consultants take a practical and personalized approach to your specific needs – no problem is too big or too small.
WSP™ is one of the world’s leading professional services consulting firms. We are dedicated to our local communities and propelled by international brainpower. We are technical experts and strategic advisors including engineers, technicians, scientists, project managers, planners, surveyors and environmental specialists, as well as other design and program management professionals. We design and deliver lasting solutions in the Buildings, Transportation, Infrastructure, Environment, Geomatics, Energy, Resources and Industry sectors as well as project delivery and strategic consulting services. With over 8,000 talented people across Canada and 42,000 globally, we engineer projects that will help societies grow for generations to come.