

Black&McDonald

SMART CITY SOLUTIONS

Smart and Connected Buildings





Building a smarter urban environment is not just about leveraging technology to expedite processes, optimize infrastructure and achieve greater efficiency. It's about embracing innovation to create a more resilient, sustainable and inclusive future for the next generation.

Our goal in integrating smart city technologies is to respond more effectively and dynamically to the needs and desires of users while minimizing resource consumption and environmental impacts. We believe in the power of smart technologies to improve the quality of life for communities and people across North America.



OUR APPROACH

Our integrated team approach is about bringing together the right people, processes and data to provide turnkey smart city solutions. We believe in sitting down at the table with our client on day one to develop a shared vision and working cooperatively throughout the process to deliver each project safely, to specification, on time and on budget.

Our experience in a truly integrated project delivery model—design/build/operate/maintain—gives us the edge in understanding the interactions between citizen, built environment, and urban environment. We've seen first hand how smart city and smart building technologies and strategies reduce overall environmental impacts from cradle to grave.



OUR ADVANTAGE

Self-performance

Our integrated multi-disciplinary team has the expertise and capacity to respond to any volume, scope or complexity of work, from design build through to maintenance and management. Our operational team has extensive experience executing smart projects in diverse sectors, including municipal, commercial, industrial and critical environments.

Local Presence across North America

With teams on the ground across Canada and the United States, we provide an agile, local solution.



System Integration

Leveraging our expertise in construction, utility, and infrastructure projects, we enable systems and technologies to communicate with one another and bring smart environments to life.

Innovation

We get excited about new technologies and continuously integrate new approaches into our repertoire of ideas.



OUR ADVANTAGE

Cost Certainty

With nearly 100 years of lessons learned, we provide accurate scheduling and costing procedures and deliver our projects on time and on budget.

Education and Advocacy

We understand the importance of end-user adoption, and we are passionate about designing and implementing programs to support user buy in.



OUR SERVICES

Smart and Connected Buildings

The future belongs to structures with sensor networks that can monitor electricity and water usage in real time, track sustainability performance, and interact with other parts of a smart city.

IoT—Integrated Solutions

IoT (“the internet of things”) allows us to introduce digital intelligence to smart buildings and cities to respond more effectively and dynamically to the needs and desires of citizens. In collaboration with our global partners, we implement integrated solutions that help organizations realize efficiencies, opportunities, and cost savings.

Analytics and Adaptation

Our day to day activities generate data that is typically underutilized. Using analytics platforms, we turn that data into actionable information and integrate new practices that reduce both costs and impacts.



OUR SERVICES

Smart and Connected Buildings

Energy Management

The integration of long-term energy management practices into operations and capital planning creates a holistic view of total impacts and opportunities. We find efficiencies and ensure reduced lifecycle impacts by using controls and analytics for real time monitoring and target setting at both the asset and whole building level.

Energy Storage

By incorporating energy storage, AI platforms, and a distributed energy generation model, we can make facilities more resilient to outages and climate events. Our team understands proper load sizing, potential revenue generation models, and current regulations to ensure a seamless installation.

Building Automation

Our strategic partnerships with Buildings Automation System providers allow us to ensure systems are properly sized and optimized for future integration of new systems and features.



OUR SERVICES

Smart and Connected Buildings

Asset Management

Asset health is measured not by the age of the asset alone but also by the total cost of ownership including maintenance and energy usage. Our team correlates these metrics to provide the real picture and better inform capital and lifecycle planning.

Waste Management

Waste diversion programs and practices reduce impacts and costs while supporting the shift to a circular economy. Our engagement strategies and tracking technologies provide a clear view into the waste stream, allowing us to explore both traditional and innovative opportunities to reduce, reuse, and repurpose.

