

Black&McDonald

SMART CITY SOLUTIONS

Infrastructure





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.



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.



OUR ADVANTAGE

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.



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

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Smarter infrastructure will be vital to realizing the vision and goals of smart cities. With smart infrastructure in place, we can all make the move to a smarter system of energy distribution and energy management.

Smart Grids

Smart Grid technology gives societies the tools to move away from centralized power generation and distribution systems to local microgrid systems that produce, store, and distribute energy based on immediate need. Drawing on our extensive experience delivering EPC energy and infrastructure projects, we provide turnkey smart grid installations designed to maximize efficiency and minimize downtime.



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Distributed Energy Resources (DERs)

Decentralized, interconnected, smaller-scale electricity-generating resources, such as wind turbines and PV installations, will play an increasingly important role within our overall power supply in the coming years. Black & McDonald is well equipped to provide clients with turnkey DER solutions thanks to our extensive experience delivering EPC renewable energy projects across North America.

Energy Storage

Energy storage systems allow clients to optimize savings by storing energy during low peak periods and deploying it strategically during high peak periods when demand charges are most costly. We collaborate with industry leaders in BES technology and intelligent monitoring and control software to provide turnkey utility scale BES solutions.



OUR SERVICES

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Smart Street Lights

Smart street lighting saves energy while enhancing the effectiveness of one of the staples of public safety. We've honed our ability to provide our customers with leading edge and robust smart street lighting technologies by working in partnership with municipalities across North America to provide asset management and maintain this critical infrastructure.

Predictive Maintenance

Major advances in artificial intelligence and machine learning now allow equipment and systems to talk to one another and to identify the need for maintenance proactively and intelligently. We partner with leading asset management software providers to implement Predictive Maintenance, increasing the reliability and lifespan of equipment while lowering maintenance costs.



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Electric Vehicle Charging Networks

As commercial and consumer use of electric vehicles (EVs) continues to grow rapidly so too does the need for networks of electric vehicle charging stations (EVCS). Our company's roots are in electrical wiring, and we remain a single source solution for all electrical service requirements, including these new and emerging applications.

