# General Brochure



# **Engineers - Architects - Planners**







# Any Project, Any Size, Anywhere

With projects completed in over 75 countries around the world, we can safely say that J.L. Richards' experience knows no bounds—but that does not mean that we are only interested in large-scale international opportunities. As an adaptable team with expansive project experience, we are prepared to take on any challenge that our clients throw our way.

Large or small, near or far, simple and straightforward or considerably complex: we want to know what projects you are planning. Whether you need an extensive multidisciplinary team or a lean team for a focused opportunity, J.L. Richards has what you are looking for.

# Our **Corporate Numbers**

Founded In 1955

100%

**Employee Owned** 

Projects Completed in Over

80%

Business from Repeat Client

100% Canadian

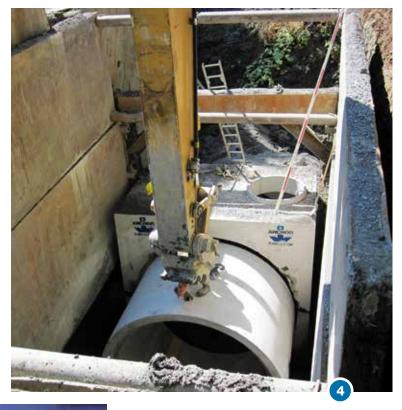
# Who We Are

Founded in Ottawa in 1955, J.L. Richards is a Platinum Club member of Canada's Best Managed Companies, providing exceptional engineering, architecture, planning, and project management services to clients in both the private and public sectors.

With offices across Ontario, all staffed with a diverse team of engineering and design professionals, J.L. Richards stands out in the industry due to bur uniquely collaborative approach. On every project, we work as a team to provide our clients with the quality, service, and value they deserve.

Another important distinction that sets J.L. Richards apart is our organizational structure. We are a completely Canadian company, entirely owned and operated by our employees. This structure ensures that, no matter who our clients connect with, they will be met with a level of care that only a company of engaged employee owners can provide.

No matter the size or scope of your project, J.L. Richards has the experience and expertise to deliver holistic designs and high-performing built projects that meet your needs.



# **Masters of Multidisciplinary Delivery**

Our competitors are increasingly seeing the value of integrated building design. Meanwhile, our firm prides itself on being one of the **pioneering proponents of integrated multidisciplinary design delivery.** Since 1955, J.L. Richards has offered clients access to an unmatched selection of inhouse design disciplines. Our early advocacy of integrated design has allowed us to develop **decades of experience in holistic design** that you will not find anywhere else.

Our firm is equipped with extensive teams of civil, electrical, energy systems, environmental, mechanical, and structural engineering staff, who are complemented by our exceptional architecture, planning, and project delivery teams. This diverse makeup is what makes J.L. Richards a leader in collaborative design delivery. With all key disciplines in house, we can provide our clients with an integrated approach to their projects from conception to completion.



## 1. Five Nations Energy Office Building - Timmins, ON

# **Connected to Your Community**

Our firm has evolved immensely throughout our long history, but there are some key aspects of our approach to business that have remained the same. We have always felt strongly that **local insight and strong community presence** are key to exceptional project planning and impactful client investment.

No matter where your project is located, we are willing to go the extra mile to understand the intricacies of the area and how they impact your plans. With seven offices across Ontario and an extensive network of industry experts at our disposal, we can offer all clients the **expertise of a large firm with the personal touch of a momand-pop operation.** 

<sup>2.</sup> JLR Sudbury Office - Sudbury, ON

<sup>3.</sup> Ottawa International Airport - Ottawa, ON

<sup>4.</sup> Sandridge Road Combined Sewer Overflow Storage and Conveyance - Ottawa, ON

Our architects and engineers work together in concert.

The strength of our integrated team is what allows us to deliver **truly exceptional building design.** 



# Buildings



# **High-performance Solutions**

Building owners today have access to more options than ever before to enhance the performance of their spaces through **economical solutions.** 

Our integrated team will work with you to understand your goals and outline opportunities to increase occupant comfort and decrease operational costs, without compromising on **durability**, **reliability**, **comfort**, **or maintainability**.



# What We Do

Our integrated Buildings Market has delivered successful designs for diverse buildings around the world, ranging from small, simple structures to expansive, multifacility campuses. We can easily adapt our approach to deliver designs focused on occupants, process, or both. We have the **expertise to tailor your facility to any function**, no matter how unique your needs are.

New construction projects, expansions, retrofits, and specialty spaces—we see every project as an exciting challenge, and we are ready with the right solutions.



# **Project Delivery Pioneers**

J.L. Richards has been a multidisciplinary firm since the day we opened our doors, making us one of the first proponents of truly integrated design and project delivery. By operating as a **one-stop-shop for small- and large-scale building design,** we ensure that all disciplines that should be involved in your project are at the table together from day one.

This multidisciplinary methodology and unmatched expertise in integrated design not only results in robust and effective solutions, but also allows us to **save you time** and offer **unmatched value** on every project.

# **Integrated Advantage**

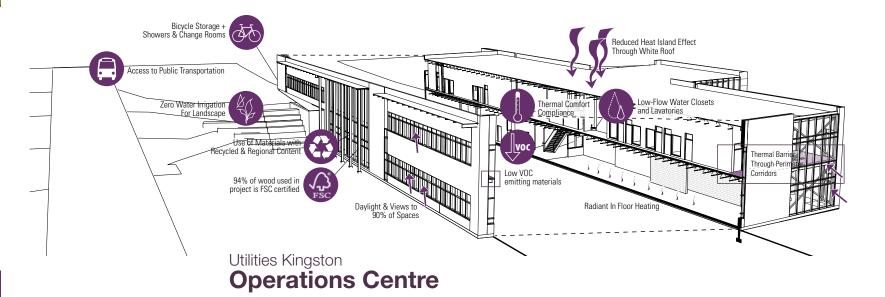
Our engineers and architects work together in concert, offering one another **invaluable insight** and **nuanced understanding** of what your space needs to achieve.

Having our integrated multidisciplinary team on your project team means you benefit from a **forward-thinking approach** to how your building looks and functions.



4. Vale Living with Lakes Centre - Sudbury, ON

5. Air Mobility Training Centre - CFB Trenton, ON



We offer a full suite of services to public and private sector clients to develop solutions that work. Our firm is equipped with experienced teams that are ready to tackle any civil, municipal, transportation, land development, water resource, GIS, or planning project.





Our staff do not just work in your community—we live there too. Our integration and active involvement in our communities is what allows us to truly understand what our clients need today and where they want to go tomorrow.

With offices across Ontario and a robust network of local experts with key **community insight,** we're perfectly situated to provide your projects with the advantage of **local presence and authentic engagement**. We work closely with your team and stakeholders in your area to develop a comprehensive understanding of your infrastructure, its end users, and their diverse needs.

This process provides our team with the **nuanced local knowledge** we need to deliver designs that work well for you today and that both anticipate and accommodate your objectives for the future.

# Municipa







# Our Approach

When we take on a municipal project, our first priority is to understand your needs and objectives. We use that understanding to develop plans and **robust solutions** that work for you today, and anticipate your needs in the future.

# **Strategic Solutions**

We provide you with a dedicated multidisciplinary team at the outset of your project that's assembled with your specific needs in mind. This responsive and collaborative approach to project delivery gives us an unmatched ability to deliver **integrated solutions** and **successful project outcomes**.

- **1**. Fisher Avenue and Dynes Road Ottawa, ON
- 2. Kanata Town Centre Stormwater Management Facility Kanata, ON
- 3. Bridlewood Subdivision Ottawa, ON
- 4. Nepean Creek Culvert Renewal Ottawa, ON
- 5. Prince of Wales Box Culvert Replacement Ottawa, ON

# Innovative Energy



# What We Do

Our team of energy system experts has been involved in groundbreaking, large-scale projects that have helped set the bar for sustainable development. With this unmatched experience in renewables and energy systems engineering, and the support of our extensive team of discipline-specific specialists, our Innovative Energy Market has the insight and experience to see solutions that you may never have even considered.

We support retrofitting and new construction projects, and we develop solutions for diverse renewable energy and power supply opportunities.

We also offer adaptable advisory services, as well as bespoke energy innovations for clients in the municipal, institutional, mining, commercial, and industrial sectors.

# **Economic Advantage**

There is a reason why diverse companies across countless sectors are investing in energy savings, renewable energy, and future-proofing—it has an undeniable impact on their bottom

Our experts understand the energy market and can adapt their approach to support smart capital spending, identify funding opportunities, support energy planning, and ensure your project results in an impressive return on investment.

Energy efficiency is an affordable reality that you can take advantage of today.



# **Thermal Energy Options**

renewable heating and cooling to supply energy to your assets.

Capturing waste heat, preheating ventilation air, incorporating thermal energy storage, or using passive solar energy, heat pumps, wood pellet boilers, sewer thermal energy, or biogas energy supplies—these are all ways you can use your site to sustainably create and store energy.



# **Alternative Electricity Options**

Once considered too costly to implement, alternative electric technologies like solar photovoltaics, wind generation, and battery energy storage systems are competitive with conventional grid energy costs today.

Better still, these renewable systems have been proven to be highly predictable energy generation assets that are reliable and that provide multiple benefits, such as peak shaving and back-up power. Whether it is for integration into a facility or for stand-alone generation, whether its multiple technologies or just one, our team can help you find the best solution for your project goals.

There are abundant options available that allow you to incorporate



- 1. Penn Energy Hamilton Solar Farm Coburg, ON 2. Energy Audit Site Visit (Source: NREL)
- 3. Coleman Mine Main Exhaust Fan Sudbury, ON

# Cohesive & **Customized Services**

Solar energy

Renewable energy planning

Energy management plans and energy strategy

High-performance buildings

Peak shaving and grid integration

Greenhouse gas emission evaluations

Detailed cost of energy, carbon, and lifecycle analysis

Energy audits and carbon reduction roadmaps

Feasibility studies

Building energy modelling

Design for retrofits and new

Owner's engineering advisory

Independent engineering for investors

Performance verification

Climate lens assessments

Funding opportunities and application support

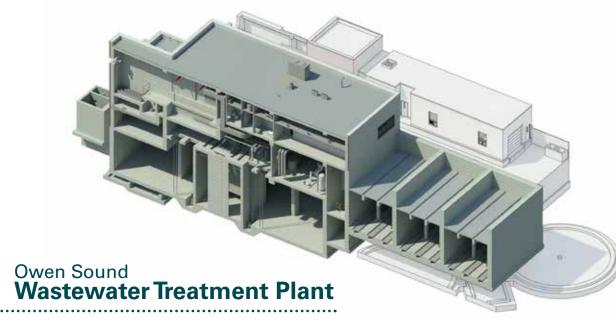
District and campus energy system design

Zero-carbon design





J.L. Richards' Environmental Infrastructure Market leaders have their finger on the pulse of industry innovations and advancements in environmental engineering technology.



Longitudinal section at UV wash and media trap

- 1. Trail Road Waste Facility Ottawa, ON
- 2. Ravensview Wastewater Treatment Plant Kingston, ON
- 3. Serpent River Water Treatment Plant Serpent River First Nation, ON
  - 4. Corner Brook Water Treatment Plant Corner Brook, NL
  - 5. Village of Casselman Wastewater Pump Station Casselman, ON

# **In-depth Service**

Our Environmental Infrastructure team is focused on finding solutions for your water treatment, storage and distribution, wastewater conveyance and treatment, and solid waste management

Our team can tackle studies, investigations, class environmental assessments, master plans, tender documents, construction contract administration services, and conceptual, preliminary, and detailed design.





# **Adaptable Approach**

In our experience, no two projects have ever been the same. Our clients have different needs, goals, available funding, sites, and existing facilities. While we are skilled at applying our experience from an array of prior projects, we know that customized solutions and designs are what is ultimately required.

Our approach to every project centres on working collaboratively with our clients, listening closely to your specific needs, taking the time to understand your facilities, and providing options that are the right fit for you.

# **Results that Resonate**

The diversity of the projects we complete and the methods we use to complete them successfully are what set J.L. Richards apart. We understand that how we deliver our services is just as important as the final product.

We strive to keep our clients well informed throughout the entire project process, listening to you, your staff, and your operators about specific problems, understanding the nuances of your facilities, and applying value engineering and quality assurance on a daily basis. You can trust us to see your project through with the same enthusiasm and effort from start to finish.

• Whether you have set your sights on a new mining site or you are interested in a specialized study, you need sound infrastructure in place to get the job done.



# Mining

# Where You Work

J.L. Richards is strategically located in close proximity to some of the largest mining and mineral processing operations in the country, and our dedicated Mining team has been providing specialized solutions for diverse clients in this sector since 1974. We use that experienced to develop **cost-conscious plans** that work for you, and to engineer robust solutions that address your needs holistically and effectively.

Throughout the entire project process, our team can provide local services that meet your needs, along with plans and designs that exceed your expectations.



- 1. Hollinger lookout Timmins, ON
- 2. Agrium Alternate Use Study Kapuskasing, ON
- 3. Dufferin Aggregates Flamboro Quarry Dundas, ON
- 4. Glencore Strathcona Crush Plant Conveyor Sudbury, ON
- 5. Cementation Equipment Maintenance Facility North Bay, ON
  - **6**. Vale Lance Cooling Tower Sudbury, ON



The real value of working with J.L. Richards is not only in what we do, but in how we do it. We provide you with a dedicated multidisciplinary team at the outset of your project, which gives us an unmatched ability to strategically sequence schedules, identify cost-saving measures, and anticipate issues before they arise.

Our advantage is simple—we are strategically structured to save you time and money.





# **Maintenance Engineering**

Issues with infrastructure and equipment cause slowdowns and stoppages, putting your production and processing at risk. That's why effective maintenance engineering and long-term maintenance planning are critical to the success of your industrial or mining operation.

Our team takes a two-pronged approach to maintenance engineering. First, we listen to the experts that work with your equipment every day to get to the heart of how they use it. Next, we practice prevention by assessing the condition of key components.

Armed with this insight, we develop intelligent designs to improve equipment, update infrastructure, and optimize processes while minimizing operational interruptions and enhancing safety measures.

Our approach to maintenance engineering **prioritizes** your production.

In March 2020, LCI Engineering Inc. was acquired by J.L. Richards and has been a wholly owned subsidiary of the firm since then. Now known as the Industrial Market, the team possesses specialized expertise in mechanical, electrical, automation and controls, process, and software engineering. The Industrial Market provides high-quality services in the plant and heavy industrial sectors and the pulp, papery, and forestry industry.







ndustria



# **General Industrial**

J.L. Richards' Industrial group performs system modifications, upgrades, and new installations for manufacturing and industrial facilities. The team collects as-built information through 3D laser scanning technology and employs process engineering capabilities to deliver highly detailed design packages. We develop efficiencies through well-maintained, longterm relationships with clients.

The team has successfully produced a variety of chemical reactor designs, first principal chemical equilibrium calculation and modelling for emissions controls, thermal fluid heat transfer modelling, and similar client plant upgrade projects.



# **Forestry**

Forestry sites are spaces that are constantly in flux. Large-scale operations in this industry create complex campuses, requiring infrastructure that's as adaptable as it is robust. Our multidisciplinary team is interested in learning about your needs—now, and well into the future of your forestry operations. By starting with a sound understanding of where your operation is and where you want to see it go, we can develop designs that respond to your requirements today and are prepared for growth or adaptation ahead of tomorrow.

Our team is experienced in enhancing automation, identifying opportunities for increased efficiency, and enabling improvements in productivity. We provide a host of value-added services to support your operations from point of harvest to milling and distribution.

# **Power Generation**

The Industrial team has specialized expertise in designing and implementing retrofits and modifications for clients in the industrial and manufacturing industry. The team has developed a wide range of diverse process operations ranging from pollution control systems to burner design, combustion optimization, heat recovery steam generators, coal-fired power plants, and balance of plant piping systems.



<sup>2.</sup> North West Redwater Sturgeon Refinery - Redwater, AB

3. Pressure Part Replacement - Essexville, Michigan, USA 4. GLACIER Facility - Thompson, Manitoba



# **Pulp & Paper**

When we work on pulp and paper projects, we make productivity our top priority. Our experienced multidisciplinary team has developed designs for countless clients in this sector, and we know how to work with you to understand operations and solve specific problems. We are skilled at maximizing capital applications, prioritizing projects as your needs dictate, and executing solutions with lean teams. Whether you're looking to sustain existing output, improve the efficiency of your processes, retrofit existing spaces, reduce energy usage, or expand operations, we can deliver holistic designs that are functional, cost conscious, and customized to your needs and timeline.

Whether on a consulting or secondment basis, we will provide you with hands-on service at every stage of your project.

J.L. Richards has enjoyed a long history of working with various Indigenous peoples and we acknowledge that as a Canadian firm with offices throughout Ontario, we have the privilege of living and working on the ancestral lands of diverse Indigenous **communities.** J.L. Richards recognizes that we must do our part to foster reconciliation and ensure that Indigenous voices are heard and understood by our organization.

Our attention and sensitivity to the needs of the communities we work with is pivotal to our journey to becoming a trusted partner and has led to numerous repeat clients. These collaborative partnerships have led to many successful and rewarding **projects** that have provided J.L. Richards with valuable learning experiences.



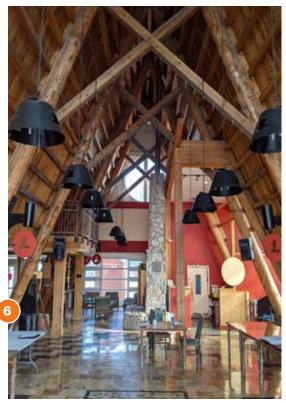




The goal of J.L. Richards' Indigenous Market is to provide Indigenous peoples with engineering, architectural, planning, and project management services rooted in respect, understanding, and acceptance.

We are positioned to meet the infrastructural and cultural needs of Indigenous communities across Canada.





Indigenous



We have chosen the colour orange to represent our Indigenous Market as a reminder of the thousands of victims and survivors of Canada's residential school system and the work we have ahead of us in the spirit of reconciliation.

We will continue to take strong steps towards allyship and play our part in fostering reconciliation.

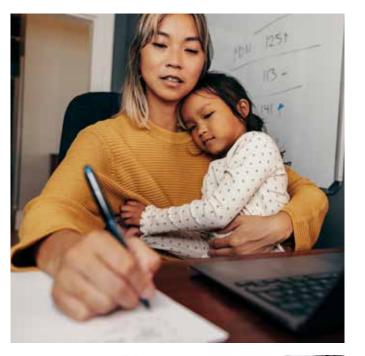
- 1. Biidaaban Kinoomaagegamik Sagamok School Massey, ON
  - 2. Mattagami First Nation School Gogama, ON
  - 3. Point Grondine Park & Campground Killarney, ON
- 4. Five Nations Energy Office Building Timmins, ON **5.** Mattagami First Nation School, Public Constultation - Gogama, ON
- 6. MoCreebec Ecolodge Condition Assessment Moosonee, ON



Our Diversity, Equity & Inclusion (DEI) Committee identifies barriers within our organization and makes recommendations for how we can work to remove them.



# Diversity, Equity & Inclusion Committe







# **Empowering Employees to Contribute to Our Collective Success**

We understand that talented people come from all walks of life, and we are empowered to remove the glass ceiling that employees from protected grounds may face. We believe that every employee should have the opportunity to contribute to our collective future and success. By creating a collaborative work environment, we can ensure that all employees are represented and have their perspectives and opinions heard and respected. Including people from equity-deserving groups provides crucial insights and perspectives that enrich our firm.

Inclusion helps foster a culture of intersectional collaboration where people representing a wide range of backgrounds and beliefs can come together and work to create complex solutions for our toughest challenges. This allows us to meet the needs of J.L. Richards' diverse client base.

# Dynamic Spaces to Accommodate Accessibility Requirements

J.L. Richards designs its working spaces to meet the diverse needs of our employees and visitors. By embracing a hybrid working model and unassigned seating in most of our offices, our employees work in dynamic spaces that can accommodate a wide range of working styles, accessibility needs, and mobility requirements. We strive to accommodate everyone so that our employees can work in an ergonomically appropriate environment.

## **Creating Positive Change Through a Diverse Workplace**

At J.L. Richards, we believe that our organizational strength depends on the strength of our people. We are proud of the policies we have put in place to preserve our diverse workplace and ensure that we are equipped to accept everyone regardless of age, ancestry, colour, race, citizenship, ethnic origin, creed, disability, family or marital status, gender identity and gender expression, sex, sexual orientation, or any other protected grounds in the Human Rights Code. By encouraging people from diverse backgrounds to apply to J.L. Richards and by reducing bias in the selection process, we recruit and retain top talent. By investing in the future of our diverse workplace, we ensure that our decisions are informed by a wide variety of voices and perspectives. This allows us to find innovative solutions that help us better serve our communities.

### **Committed to Ensuring All Employees Thrive in Their Careers**

At J.L. Richards, we strive to create an inclusive community by endeavouring to make our organization a place where all are able to participate fully and authentically. Our commitment to being an equal opportunity employer a means that we actively recruit candidates from equity-deserving groups. Our commitment to equity ensures that all of our employees can thrive in their careers.

JLR supports the full inclusion of persons with disabilities as set out in the Canadian Charter of Rights and Freedoms, Ontario Human Rights Code, and the Accessibility for Ontarians with Disabilities Act (AODA). We are compliant with current AODA legislation. As an employer and service provider, JLR actively supports the goals of eliminating physical, architectural, information and communications, attitudinal, and technological barriers, including ensuring our offices are in full compliance with all government-mandated programs.

J.L. Richards & Associates Limited | www.jlrichards.ca

Environmental Sustainability Committe

As a firm that designs buildings and other infrastructure that will be in place for decades, we understand that the design choices we are making on a daily basis impact our world's ability to cope with climate change for years to come. J.L. Richards strives to be a leader in environmental sustainability. We endeavour to reduce the environmental impact of our business operations and use sustainability to guide our decision making. J.L. Richards complies with and attempts to exceed all environmental regulations and we promote awareness of environment considerations and sustainable alternatives where possible.

As an organization, we understand that we have a responsibility to reduce our impact on the environment as much as possible. We support efficient initiatives that reduce J.L. Richards' environmental footprint, and we promote a culture of stewardship and responsibility among our employees.

Charting our way forward as environmental stewards also means responsible actions where we work. J.L. Richards supports an agile workforce, allowing for better space utilization and reduced carbon footprint. We are investing in technology that allows all work tasks to be conducted without printouts, eliminating more than 90% of the printers in our offices and digitizing all archival documents, and shifting to digital engineering and architectural drawings. Our flexible hybrid work policy reduces commuting days by 40%, for employees who desire it.







## Sustainable Design

In our professional practice, we work to balance our consulting process to meet social, cultural, technical, and economic needs with sustainability always in mind. We aim to keep up with best practices in climate change mitigation and adaptation so we can continue to appropriately advise our clients on how to respond to the climate emergency.

As a multidisciplinary practice, we have an impact on the environment where we live, play, and work. J.L. Richards collaboratively works with our clients and balances the needs of projects while considering the overall impact of our design and services in the context of the continuously evolving stresses on our planet. In 2018, J.L. Richards took the bold step of creating a dedicated Innovative Energy Market and a dedicated Energy Systems Engineering Discipline. With the Innovative Energy Market focus, we engage in leading-edge renewable energy projects. With the dedicated Energy Systems Discipline, we maintain engineers with unique training and expertise capable of incorporating energy and carbon reduction opportunities across all project types.

Beyond buildings, we work with our clients to manage their energy consumption in their infrastructure, district energy systems and asset portfolios, and we support planning, design and third party due diligence of both electrical and thermal renewable energy generation and storage.



## **Architecture**

Our architects offer invaluable insight about the human elements of building design. We consider each new project to be an opportunity to blend creativity and artistry with utility and performance.

# **Civil Engineering**

Our civil engineers are experts in infrastructure. We've built a reputation for identifying innovative solutions that provide the most value to our clients, to meet their needs now and as their communities and developments evolve.



# Services





# **Electrical Engineering**

You can trust our electrical engineers to utilize designs that are logically developed and customized to your specific needs. We work collaboratively both in house and with our clients from the conceptual design phase through to detailed design, and we focus on providing design options that are affordable to construct. economical to maintain, and flexible to expand.

# **Energy Systems Engineering**

J.L. Richards energy systems engineers are at the cutting edge of efficiency innovation and low-carbon strategies. With extensive experience in renewables, low-carbon engineering, green buildings, and customized energy systems, we support our clients with creative energy solutions that are both sustainable and robust.

# **Environmental Engineering**

Our team is focused on finding solutions for your water treatment, storage and distribution, wastewater conveyance and treatment, and solid waste management needs. Our team can tackle studies, investigations, class environmental assessments, master plans, conceptual, preliminary, and detailed design, construction tender documents, and contract administration services.

# **Planning**

Planning is the critical starting point of a successful project. Our experienced planners are skilled at supporting your objectives. We consider existing assets, economic constraints, regulatory limitations such as federal/provincial policy, official plans, zoning, and conservation, as well as climate mitigation, and your aspirations to ensure that the options we create are not only viable, but insightful as well.

Our innovative and adaptable planning team responds to complex contexts with innovative approaches, and are committed to seeing our clients' plans through to fruition.

# **Mechanical Engineering**

Our mechanical engineering team believes that listening to our clients is key. We work closely with all of our clients to understand their needs and expectations so that we can deliver economical solutions that improve efficiency and work effectively for them.

You can trust our team to create project plans that balance capital spending against durability, reliability, comfort, energy usage, and long-term maintenance needs. This holistic approach allows us to deliver designs that don't compromise.



# **Structural Engineering**

Our structural team understands the advantage of working collaboratively at every stage of a project's progression. By coordinating closely with our clients and multidisciplinary colleagues, we develop designs that are reliable, constructible and fit to purpose.

Our structural team is focused on delivering sound solutions that support our clients' assets and infrastructure.



# **Project Delivery**

Our Project Delivery team understands that there are many stages in the process of turning vision into reality, each more complex than the last. That's why we provide our clients with informed, efficient, and effective project managers that know how to turn ideas and ambitions into successful, completed projects,

While excellent design is at the heart of all J.L. Richards projects, effective project management forms the foundation of their success.

- 1. Canadore College Parry Sound Campus Parry Sound, ON
- 2. Stormwater 2D Modelling Barrhaven, ON
- 3. "Sawtooth" High Density Rooftop Solar Array
- 4. Ravensview Wastewater Treatment Plant Kingston, ON
- 5. Vale PLS Tank Repairs Long Harbour, NL





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Electrical Engineering
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Environmental Engineering
Mechanical Engineering
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