



Engineers

Creative Thinking **Practical Results**



**RJC Engineers**

[rjc.ca](http://rjc.ca)

Vancouver • Victoria • Nanaimo • Kelowna • Calgary • Edmonton • Lethbridge • Toronto • Ottawa • Kitchener • Kingston

Heritage buildings are not only a window into the past — they are a part of our country's character. Conserving and restoring our historic structures and buildings is a means of preserving Canada's unique and compelling story.

## Creative Thinking **Practical Results**

Since 1948, **RJC Engineers** has been an innovative solutions provider that uses engineering knowledge and constructability experience to capture our clients' vision and turn it into a reality. Our firm was founded on the principles of innovation, collaboration and engagement.

We constantly challenge ourselves by taking on projects that are unique and unconventional. We carefully consider each project, ensuring our designs are practical, sustainable and responsive to the ever-changing environment.

Ultimately, our goal is to design and restore buildings and structures that add vitality to streets, communities and city skylines.

## Service **Offerings**

Bridge Design and Rehabilitation  
Building Enclosure Engineering  
Condition Assessments  
Depreciation Reports  
Façade Engineering  
Fall Protection/Travel Restraint  
**Heritage Conservation**  
Parking Facility Design  
Pavement Rehabilitation  
Performance Assessment

Post-Tensioned Concrete  
Prime Consulting  
Reserve Fund Studies  
Roof Consulting  
Seismic Risk Mitigation  
Structural Engineering  
Structural Glass Engineering  
Structural Restoration  
Sustainable Design  
Waterproofing Design

RJC's areas of practice all contribute to developing the right plan of action for our clients.



# Heritage Conservation

## Preserving our past

Working with historic buildings and environments requires a unique knowledge and a delicate approach. Our dedicated specialists are highly experienced in all aspects of heritage work and have contributed considerably to the restoration, conservation, protection and adaptation of many of Canada's historic structures and buildings.

Our understanding of the value of the fabric of these historic assets is a vital requirement for our engineers working in this specialized sector. Knowing historic construction practices and how to navigate heritage building legislation, combined with our expertise with building science and structural engineering, enables us to balance the needs of multiple stakeholders, while offering creative, economic and practical solutions to address historic building needs.



**RJC** offers services that enable the successful protection and regeneration of historic environments.

- Engineering services for evaluation, preservation, rehabilitation and restoration of historic and heritage building enclosures
- Façade and roof engineering
- Structural engineering
- Energy efficiency upgrade studies and design
- Seismic restraint of features and façades
- Heritage alteration permit consultation and submissions



# Our Approach

## From investigation to construction

RJC has successfully repaired, preserved, restored and adapted many of Canada's historic buildings and infrastructure.

RJC brings a positive attitude and collaborative spirit, combined with technical expertise and a commitment to exceptional client service, to all our heritage assignments.

We believe in taking a holistic approach to each aspect of a restoration project — from investigation through to project delivery. We work interactively with the entire project team, involving owners, specialty trades and other heritage professionals and engineering specialties. A large part of our interaction is focused on educating owners and other team members on the principles of conservation best-practices and on the structural aspects of the project at hand, as well as on the technical complexity and sensitive nature of materials and building science performance.



1. **The Janion** | Seismic Upgrade and Heritage Restoration | **Victoria, BC**
2. **Thomas Fisher Rare Book Library** | Façade and Heritage Restoration | **Toronto, ON**
3. **MNP Tower** | Façade Retention | **Vancouver, BC**
4. **Brent's Grist Mill** | Wood Preservation and Heritage Restoration | **Kelowna, BC**

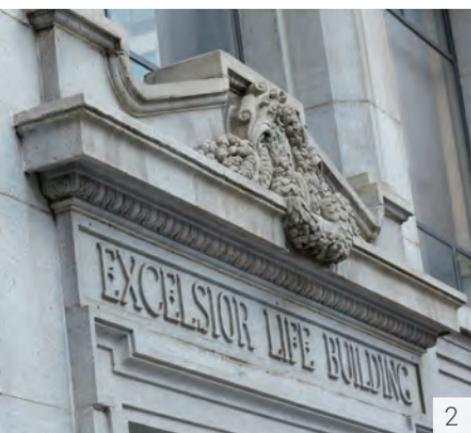
Before



After



Pacific Central Station | Masonry Façade and Brick Conservation | Vancouver, BC



## Our Experience

### Heritage engineering excellence

With eleven locations across Canada, we are able to provide heritage engineering services for clients nationwide. Our experience includes the full range of evaluation, preservation, rehabilitation and restoration services as described in Parks Canada's Guideline for Conservation of Historic Places in Canada. Our specialists have been involved in conserving whole buildings and character defining elements, including: secondary structural elements, stone and masonry façades, timber structures, wood and steel framed windows and unique architectural elements.

Our specialists have acquired knowledge and techniques through project work for our broad client base, including all levels of government, public and private sector, school districts and property managers.

- 1. **Central Elementary School** | Window and Masonry Restoration | Kelowna, BC
- 2. **Excelsior Life Building** | Façade and Heritage Restoration | Toronto, ON

RJC is well versed in the treatments for various historic materials used in some of Canada's oldest structures and this experience provides us with a unique understanding of modern sympathetic materials used to restore them. We understand how historic and modern materials behave or deteriorate in our distinctive Canadian climate, and how to salvage, conserve or rehabilitate antiquated materials and building systems.

This knowledge enables us to assess the condition of buildings and structures, develop cost-effective conservation programs to enhance tenant comfort and safety, preserve the integrity of structural components, and extend the service life of historic cladding and façade components of some of Canada's oldest and most revered landmarks and structures.

- 1 & 2. **Little White School** | Heritage Restoration and Conservation (Structural) | St. Albert, AB
- 3. **Point Abino Lighthouse** | Heritage Restoration | Fort Erie, ON





University of British Columbia Chemistry Centre | Façade and Window Conservation | Vancouver, BC



1. St. Peter's Church and Rectory | Masonry Façade and Heritage Restoration | Toronto, ON
2. Fairmont Banff Springs Hotel | Masonry Restoration | Banff, AB
3. Cape Sable Lighthouse | Heritage Restoration | Barrington, NS
4. Innovation and Wellness Centre | Heritage Façade, Window and Roof Restoration | Kingston, ON

## Complementary Practice Areas

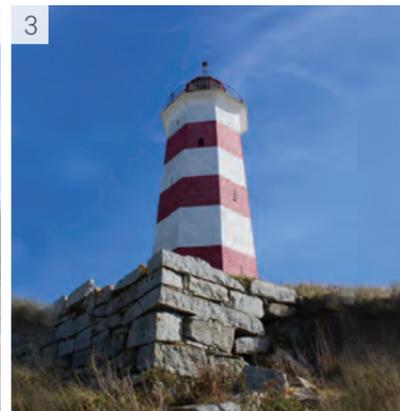
RJC's areas of practice all contribute to developing the right plan of action for our clients. From understanding antiquated construction materials to navigating modern legislation and current Codes, our experienced team has the skills to balance the needs of multiple stakeholders and offer creative, economic, and practical solutions to conserve historic structures and buildings in our communities.



1



2



3

### Building Science

Our building science specialists have assessed hundreds of buildings of every material type in every climate zone in Canada, and can draw on their experience in finding solutions to the next project. If the assessment and/or design of enclosures requires the use of computer modelling, our building scientists are well-versed with multiple software suites ranging from whole building simulation to hygrothermal modelling of specific envelope components.

### Structural Restoration

Our engineers have experience with prime consulting, building codes and national standards relating to structural repairs, seismic reinforcement, durability, and protection for structural components. We have a well-earned reputation for practical, flexible and effective restoration solutions that meet the rigorous requirements of the structure, while minimizing the disruption to the building operations.

### Structural Engineering

As part of an integrated whole building design team, we understand how structure interacts with all aspects of design. Our range of expertise encompasses many structural systems including: cast-in-place, Post-Tensioned and precast concrete, structural steel, light-gauge steel, wood frame, masonry and glass.

1. **The Hudson** | Masonry and Window Conservation | **Victoria, BC**
2. **Cave and Basin** | Heritage Restoration | **Banff, AB**
3. **Sambre Island Lighthouse** | Heritage Restoration | **Halifax, NS**



The Janion | Seismic Upgrade and Heritage Restoration | Victoria, BC



- 1. Machias Seal Island Lighthouse | Heritage Restoration | Machias Seal Island, NB
- 2. The Oriental | Seismic Upgrade and Heritage Restoration | Victoria, BC
- 3. Waterfront Station | Stone and Brick Restoration | Vancouver, BC
- 4. University of Alberta Athabasca Hall | Stone and Brick Conservation | Edmonton, AB



Simmons Building | Conversion and Heritage Restoration | Calgary, AB

## Our Heritage Specialists

**British Columbia** | Victoria + Nanaimo

**Kevin Pickwick**

AScT, P. Eng., LEED® AP, CCCA

T. 250.386.7794 E. kpickwick@rjc.ca

**British Columbia** | Vancouver + Kelowna

**Glade Schoenfeld**

BASc, AScT, P. Eng., RO, CAHP

T. 604.738.0048 E. gschoenfeld@rjc.ca

**Alberta** | Edmonton

**Nick Trovato**

MEng, P. Eng., FEC, FGC(Hon)

T. 780.452.2325 E. ntrvato@rjc.ca

**Alberta** | Calgary

**Nikolas Marsall-Moritz**

MEng, P.Eng., CAHP

T. 403.283.5073 E. nmarsall-moritz@rjc.ca

**Ontario** | Toronto + Kingston + Kitchener + Ottawa

**Michael Park**

CET, BSSO, CAHP

T. 613.767.6936 E. mpark@rjc.ca



**The Bastion** | Structural and Building Envelope Restoration | Nanaimo, BC  
AWARD | 2011 Heritage Conservation Outstanding Achievement Award | Heritage BC  
AWARD | 2011 Heritage Building Rehabilitation Award | City of Nanaimo

# Contact Us

## Vancouver

1285 West Broadway, Suite 300  
Vancouver BC V6H 3X8  
T. 604.738.0048

## Victoria

645 Tyee Road, Suite 220  
Victoria BC V9A 6X5  
T. 250.386.7794

## Nanaimo

155 Skinner Street, Suite 301  
Nanaimo BC V9R 5E8  
T. 250.716.1550

## Kelowna

1626 Richter Street, Suite 214  
Kelowna BC V1Y 2M3  
T. 778.738.1700

## Calgary

1816 Crowchild Trail NW, Suite 500  
Calgary AB T2M 3Y7  
T. 403.283.5073

## Edmonton

17415 - 102 Avenue, Suite 100  
Edmonton AB T5S 1J8  
T. 780.452.2325

## Lethbridge

400, 4 Avenue South, Suite 202  
Lethbridge AB T1J 4E1  
T. 403.320.0467

## Toronto

100 University Avenue, North Tower, Suite  
400 Toronto ON M5J 1V6  
T. 416.977.5335

## Ottawa

116 Albert Street, Suite 341  
Ottawa ON K1P 5G3  
T. 613.701.0977

## Kitchener

22 Frederick Street, Suite 1014  
Kitchener ON N2H 6M6  
T. 519.954.6392

## Kingston

780 Midpark Drive, Suite 103  
Kingston ON K7M 7P6  
T. 613.767.6936

Front Cover | Fairmont Empress Hotel | Heritage Conservation | **Victoria, BC**  
Front Back Cover | Lord Kitchener Elementary School | Seismic Upgrade and Heritage Conservation | **Vancouver, BC**



Central Elementary School | Window and Masonry Preservation | **Kelowna, BC**  
AWARD | 2014 Award of Honour in Heritage Conservation | **Heritage BC**

Creative Thinking **Practical Results**

RJC Engineers  
**rjc.ca**