

# Construction in Atlantic Canada

Atlantic Canada's construction sector is leading the country in growth and diversification. Major construction projects in the energy sector will drive construction growth in the region over the next few years.

The construction industry in Atlantic Canada is multi-faceted, with large engineering achievements such as the 13-km (8-mile) long Confederation Bridge, hyper-activity in energy-related projects, highway construction, and a solid base of residential and commercial work.

Atlantic Canadian firms are supplying the construction industry across North America and around the world – from basic wood products such as finger jointed lumber, laminated beams and roof trusses to manufactured products such as windows and doors, cabinets, moulding and other fixtures. An example of the scope is to be found in Leby Fixtures and Interiors of Moncton, New Brunswick, which supplied all of the architectural woodwork for the Sheraton Desert Inn and Casino, and the MGM Grand Hotel in Las Vegas.

Atlantic Canadian firms are also exporting their expertise and services, collaborating on a wide variety of construction projects around the world.

## CHARACTERISTICS

The construction industry is the seventh largest employer in Atlantic Canada, with over 63,000 people employed in 2005 in more than 100 occupations, including architects, engineers, engineering technicians, electricians, plumbers, blasters and other certified trades.

Major construction projects have included the massive Confederation Bridge, the twinning of major portions of the Trans-Canada Highway and a range of oil and gas projects. Residential and commercial construction enjoy sustained growth with the value of building permits (excluding major construction projects) approaching \$2.8 billion in 2005. This represents a 33% increase over 2002, well above the national average.

## VALUE OF BUILDING PERMITS

### ATLANTIC CANADA (\$ MILLIONS)

	2002	2005	% Change
<b>Newfoundland and Labrador</b>	383	494	29%
<b>Prince Edward Island</b>	146	244	67%
<b>Nova Scotia</b>	877	1,188	35%
<b>New Brunswick</b>	664	829	25%
<b>Atlantic Canada</b>	2,070	2,755	33%

source: Statistics Canada (2005)

Both residential and commercial construction have enjoyed sustained growth with the value of building permits approaching \$2.8 billion in 2005.

Construction activity in Atlantic Canada is expected to remain strong in the coming years do in part to a number of large scale energy-related projects as well as residential and commercial construction in the region's urban centres.

## CONSTRUCTION IN ATLANTIC CANADA

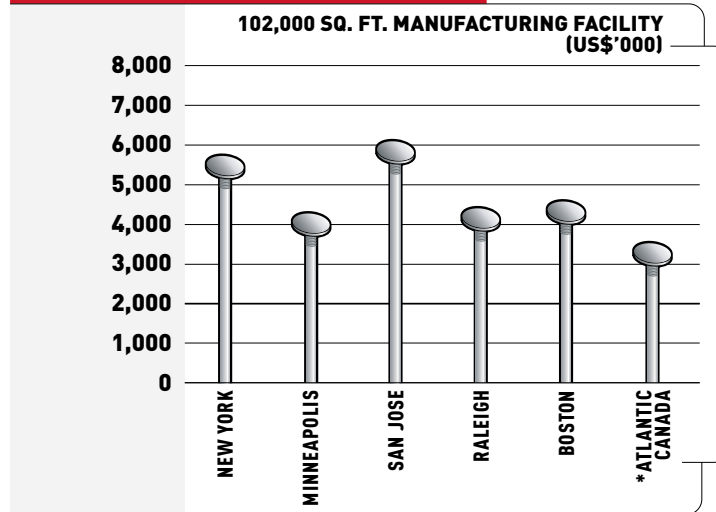
Construction costs in Atlantic Canada are among the lowest in North America. Construction costs in Halifax, Nova Scotia are the lowest amongst all the cities compared in Competitive Alternatives: KPMG's guide to international business costs, 2006.

According to Competitive Alternatives: KPMG's guide to international business costs, 2006, land costs in Atlantic Canada are lower than average land costs in any of the G7 countries, and on average are 65% lower than the U.S. The cost advantage is even more pronounced over other G7 countries.

### BUSINESS COSTS

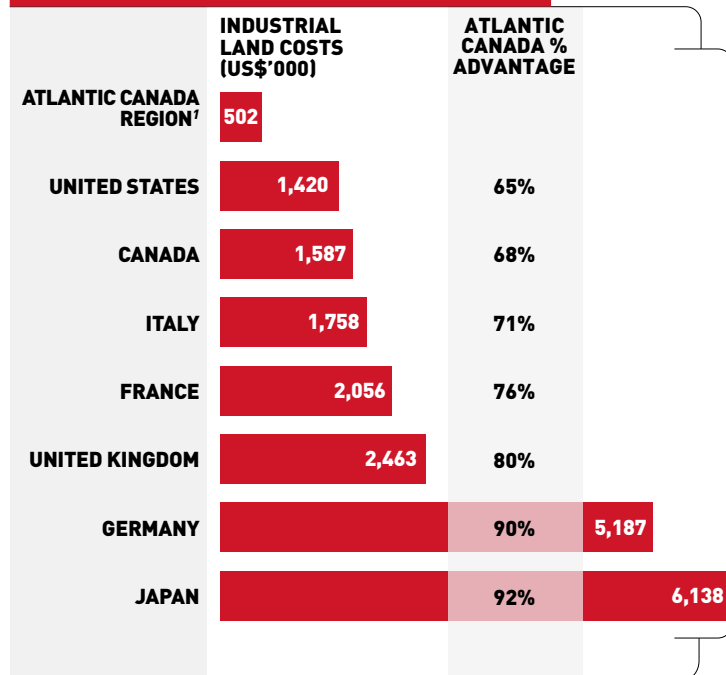
The *Competitive Alternatives: KPMG's guide to international business costs, 2006* compared business costs in more than 100 cities in North America, Europe and Asia-Pacific. The study found that the costs of construction for a typical manufacturing facility were lowest in Atlantic Canadian cities.

#### CONSTRUCTION COST COMPARISON



source: *Competitive Alternatives: KPMG's guide to international business costs, 2006 Edition*.  
\* Average of seven cities in Atlantic Canada.

#### INDUSTRIAL LAND COST COMPARISON



1. Average of seven cities in Atlantic Canada

## BUSINESS ENVIRONMENT

Atlantic Canada's more than 100 industrial and business parks offer many location alternatives, from heavy industrial to high tech, from urban to rural. The current industrial/business park infrastructure offers 20 to 30 years of available space with serviced and unserviced lots of all sizes. The cost of serviced industrial land in Atlantic Canada is among the most competitive in North America. According to KPMG's 2006 guide to international business costs, land costs in Atlantic Canada are lower than average land costs in any of the G7 countries, and on average are 65% lower than the U.S. The cost advantage is even more pronounced over other G7 countries.

Atlantic Canada was built on exports and, as such, has a very well-developed transportation infrastructure.

There are over a dozen seaports offering easy access to European and North American ocean shipping lanes. The ports of St. John's, Newfoundland and Labrador, Halifax, Nova Scotia and Saint John, New Brunswick are year-round, ice-free ports offering some of the deepest water on the Eastern Seaboard.

Atlantic Canada has an elaborate network of four lane highways linking it to Central Canada and the New England states. The Confederation Bridge provides convenient access to Prince Edward Island, and a network of ferries connects Newfoundland and Labrador to the rest of North America.

Atlantic Canada's 33 airports offer dozens of daily flights to North American and European destinations, including the

region's four international airports: Halifax International Airport in Nova Scotia, the Greater Moncton International Airport in New Brunswick, and the Gander and St. John's International Airports in Newfoundland and Labrador.

There is also a well-developed air cargo-shipping infrastructure serviced by international players such as Emery Worldwide, FedEx, Kuehne & Nagel, and Purolator. In addition, the Greater Moncton International Airport Cargo Village is a state-of-the-art multi-tenant complex designed to accommodate a diversified array of aviation-related users, including ground handling companies, courier services, cargo handlers, air carrier operations and freight forwarders.

All four provinces in Atlantic Canada have environmental impact assessment (EIA) programs designed to balance industrial growth with environmental protection. The EIA process in Atlantic Canada is thorough and timely.

## LEADERSHIP

In the past few years, a number of major construction projects have added significantly to Atlantic Canada's infrastructure:

- The \$1 billion Confederation Bridge linking New Brunswick and Prince Edward Island is called an engineering marvel by the Canadian Construction Association.
- Newfoundland and Labrador's \$8 billion Hibernia offshore oil project, \$4.5 billion Terra Nova offshore project and \$2.3 billion White Rose offshore project

are making important contributions to that province's economic growth.

- Nova Scotia's energy play has contributed to growth in the construction industry including the \$3 billion Sable Offshore Energy Project (natural gas) and the \$1.7 billion, 1,000-km (625-mile) natural gas pipeline.
- The recent upgrade of the Irving Oil Refinery in Saint John, New Brunswick, was a project worth over \$1.5 billion.

The 2006 edition of the Atlantic Provinces Economic Council's Major Projects Inventory identified 357 projects in various stages of development across Atlantic Canada, valued at nearly \$54 billion. These projects include:

### Newfoundland and Labrador

- \$6.9 billion Lower Churchill River Hydroelectric Development
- \$2.9 billion project to develop the Voisey's Bay (nickel – copper – cobalt) deposit
- \$2.5 billion Labrador Wind Farm
- \$1.2 billion Humber Valley International Resort development

### New Brunswick

- \$1.4 billion refurbishment of the Point Lepreau nuclear power facility
- \$750 million Canaport LNG liquefied natural gas receiving terminal and storage facility

### Nova Scotia

- \$4.3 billion Keltic Petrochemicals Inc petrochemical plant in Goldboro
- \$2.2 billion Donkin Mine Development and Power Plant in Cape Breton
- \$750 million Bear Head liquified natural gas (LNG) Terminal
- \$400 million Sydney Tar Ponds and Coke Oven site environmental clean-up

### Prince Edward Island

- \$200 million 100-megawatt wind farm in West Cape, PE
- \$60 million 30-megawatt wind farm in eastern PE

\*All amounts shown in Canadian dollars.

## SELECTED CONSTRUCTION INDUSTRY - RELATED EXPORTS FROM ATLANTIC CANADA (2005)

Category	10 Year Growth Rate	2005 Exports (\$'000s)
<b>Veneer, plywood and engineered wood products</b>	<b>490%</b>	<b>367,009</b>
<b>Structural wood products</b>	<b>4,387%</b>	<b>156,515</b>
<b>Waferboard</b>	<b>30,342%</b>	<b>112,331</b>
<b>Millwork</b>	<b>75%</b>	<b>16,376</b>
<b>Softwood veneer and plywood</b>	<b>1,840%</b>	<b>8,515</b>
<b>Wood windows and doors</b>	<b>85%</b>	<b>6,074</b>

## CONSTRUCTION IN ATLANTIC CANADA



### PROVINCES AND ABBREVIATIONS

**NB** - NEW BRUNSWICK  
**PE** - PRINCE EDWARD ISLAND  
**NS** - NOVA SCOTIA  
**NL** - NEWFOUNDLAND AND LABRADOR

If you would like more information on this sector, please contact:

#### Atlantic Canada Opportunities Agency

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### RESEARCH AND DEVELOPMENT

Atlantic Canada invests in research and development across its industry sectors and this is evident in the construction industry.

**C-CORE** (St. John's, NL) is a global research and development organization that offers construction-engineering expertise in the natural resource sectors. Located at Memorial University of Newfoundland, C-CORE focuses on production and market issues faced by natural resource sectors such as oil and gas, pipeline, mining, pulp and paper, forestry, fisheries and aquaculture.

### Construction Technology Centre

**Atlantic Inc.** (Fredericton, NB) is a regional institute housed at the University of New Brunswick conducting and disseminating research on new technology for the construction industry. The Centre

also provides expert consultation services to industry professionals.

### D.C. Campbell Chair in Highway Research and Pavement Design

(Fredericton, NB) is located at the University of New Brunswick's Department of Civil Engineering. The Chair conducts research in highway and pavement engineering, and manages a renowned graduate program that offers degrees at both the master and doctoral levels.

### M. Patrick Gillin Chair in Construction Engineering and Management

(Fredericton, NB), located at the University of New Brunswick's Department of Civil Engineering, has broad research programs that focus on construction-related topics such as productivity, facilities management, resource scheduling and cost estimating.

### CONSTRUCTION IN ACTION

Three of the last eight Canadian Construction Association Environmental Achievement Awards have been won by companies located in the region.

The **Maritime Road Development Corporation**, a consortium of New Brunswick-based firms, won the award in 2002 for the construction of the Trans-Canada Highway between Fredericton and Moncton.

Nova Scotia's **Sable Offshore Energy Incorporated** won the award in 2001 for its environmental efforts in offshore construction.

The **Confederation Bridge** linking New Brunswick and Prince Edward Island also received this prestigious award in 1994 and is one of Canada's top five engineering achievements of the 20th Century according to Canada's Council of Professional Engineers, Association of Consulting Engineers, Engineering Institute and Academy of Engineering (1999).

Atlantic Canada doesn't keep all that environmental expertise to itself. When Coors Brewing Company needed a new wastewater facility in Elkton, Virginia, it turned to **ADI Group Inc.** The Fredericton, New Brunswick-based engineering firm designed and built a six million gallon, in-ground, double geomembrane-lined anaerobic wastewater treatment system using its own proven ADI-BVF design. For Coors, ADI was the perfect choice. It had both the environmental expertise and the construction know-how to get the job done.



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