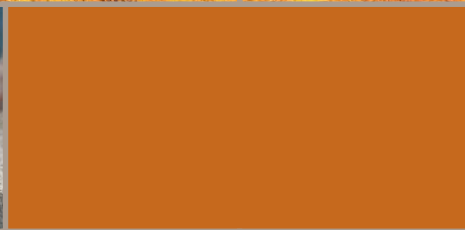
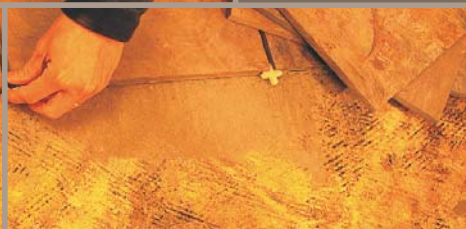
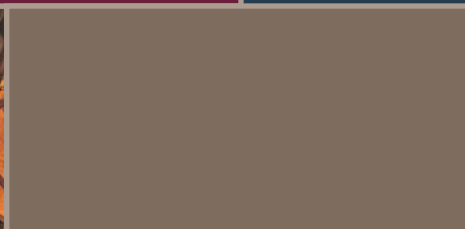
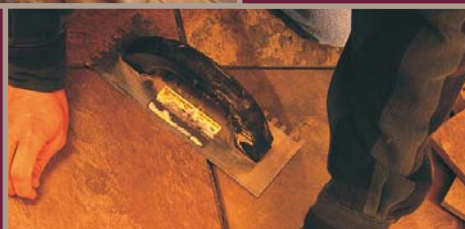


Building Your Career

Occupations in the Construction Industry



Hamilton Training Advisory Board
Commission consultative sur la formation à Hamilton



October 2008



Acknowledgement

Thanks to Rachelle Moore for her research and development skills and to Cyndi Ingle for her editing of this guide. Thanks to the employers who took the time to respond to our requests for information about careers in construction. A special thanks to Joe Beattie and the members of the Hamilton Brantford Building Trades Council for their support.



Hamilton Training Advisory Board
Commission consultative sur la formation à Hamilton

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The Hamilton Training Advisory Board is funded by Employment Ontario

**EMPLOYMENT
ONTARIO**

Introduction

For some, it's the chance to run the family business or the challenge of taking a project from concept to completion. For others, it's the freedom of working with their hands outdoors and enjoying the sunshine and fresh air. Whatever the reason, the world of construction provides many exciting opportunities for all to discover.

As a skilled construction worker, you could help build homes, offices, schools, bridges, roads, factories or shopping malls and be part of a \$130-million industry which accounts for more than 12% of Canada's economy. Within the construction industry there are four sectors – new home building and renovation; heavy industrial construction; institutional and commercial construction; and civil engineering construction, with the fastest increase seen in the new home building and renovation sector.

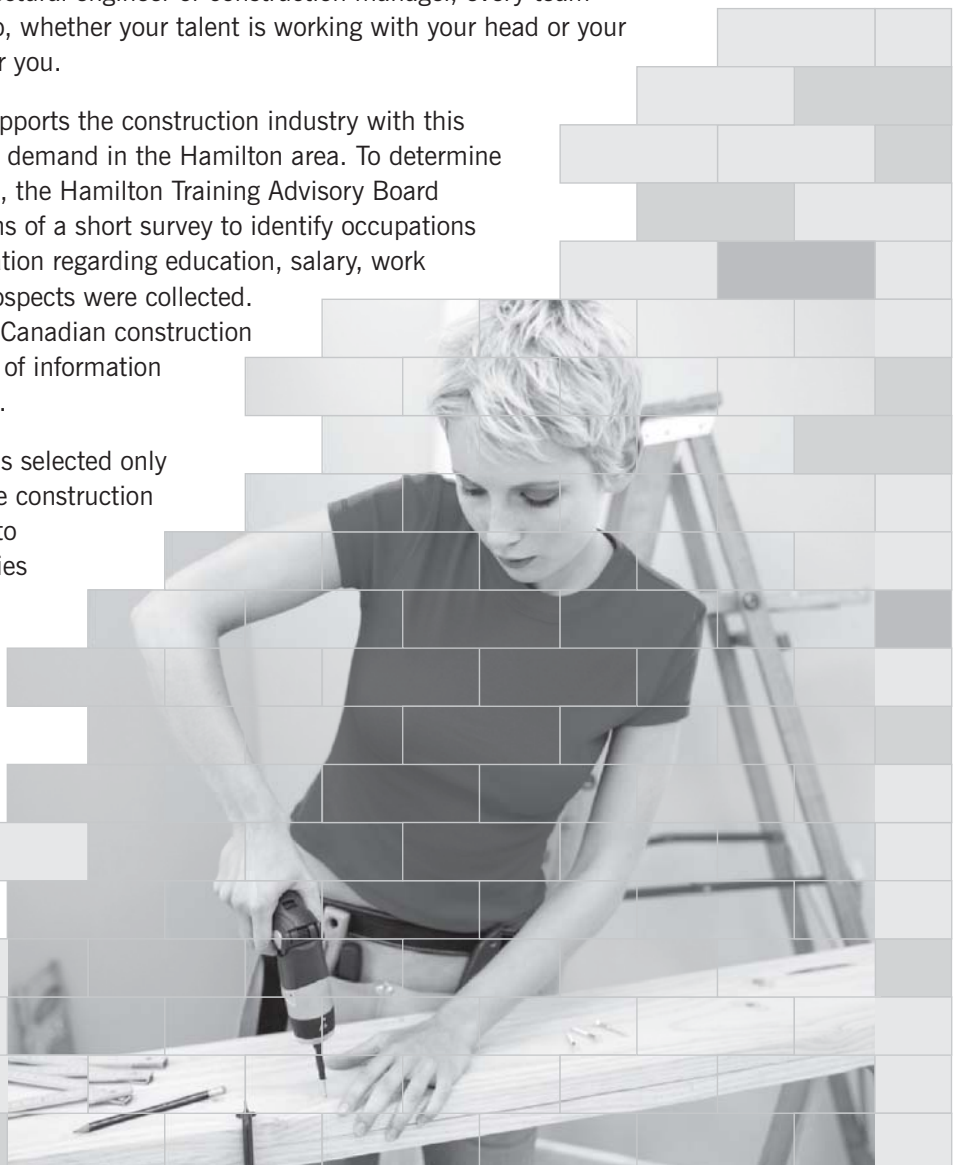
The construction industry has much to offer the Canadian economy and 39% of all those working in construction in Canada work in Ontario. In 2008, Stats Canada reports over 416,800 workers were employed in Ontario in this industry. In Hamilton, there are 1,575 employers in this sector. Though the vast majority are small businesses employing one to four people, there are 13 companies employing over 100 people in a variety of hands-on, administrative, and managerial occupations.

While some careers require university degrees, others college diplomas and many requiring apprenticeship training, the construction industry offers a variety of pathways to employment. Whatever your role in the industry, whether bricklayer or boilermaker, architectural engineer or construction manager, every team member has an important role to play. So, whether your talent is working with your head or your hands there **is** a career in construction for you.

The Hamilton Training Advisory Board supports the construction industry with this guide that profiles career opportunities in demand in the Hamilton area. To determine which occupations appeared in the guide, the Hamilton Training Advisory Board consulted with industry partners by means of a short survey to identify occupations that are in demand in Hamilton. Information regarding education, salary, work environment/hours of work and future prospects were collected. In addition, national resources and other Canadian construction studies were used to develop a full range of information for each occupation featured in the guide.

The Hamilton Training Advisory Board has selected only a few of the many careers available in the construction industry in Hamilton. Readers are urged to explore the many other career opportunities available in this area through excellent on-line resources appearing throughout the guide.

The Hamilton Training Advisory Board would like to extend their thanks to employers and others who contributed to the development of *Building your Career*.



Building Your Career - Occupations in the Construction Industry

1. Architect
2. Architectural Engineer
3. Boilermaker
4. Bricklayer
5. Cabinetmaker
6. Carpenter
7. Concrete Finisher
8. Construction Craft Labourer
9. Crane Operator
10. Drywall Installer
11. Electrician
12. Elevator Mechanic
13. Estimator
14. Exterior Finisher
15. Floor Covering Installer
16. Gas Technician
17. Glazier
18. Heat and Frost Insulator
19. Heavy Equipment Mechanic
20. Heavy Equipment Operator
21. Home Builder
22. Ironworker
23. Millwright
24. Painter/Decorator
25. Plumber
26. Refrigeration and
Air Conditioning Mechanic
27. Roofer
28. Sheet Metal Worker
29. Sprinkler and Fire Protection Installer
30. Steamfitter
31. Tiler
32. Welder





Architect

NOC 2151

What responsibilities will I have?

- Conceptualize and design buildings and develop plans describing design specifications, building materials, costs and construction schedules
- Prepare alternative sketches and models for clients, sometimes using CAD (computer aided design)
- Prepare or supervise the preparation of blueprints for use by contractors and trades people, and hire and supervise those people
- Ensure construction proceeds as planned



What education and training is required?

Currently to become an Architect the minimum requirement is the completion of a bachelor's degree from a recognized school of architecture as well as two years of experience under the supervision of a registered Architect. To gain supervised experience, it is recommended that you complete the Internship in Architecture Program through the provincial architectural association. To earn your architectural license you must attend an admission course lecture and successfully complete the Architectural Registration Examinations set by the provincial association of architects. In Ontario, Architects are regulated by the Ontario Association of Architects.

To pursue a career as an Architect...

- The following high school courses are recommended to prepare for a degree program: **English, Mathematics, Science, and Computers**
- Post-secondary education offered at the university level related to this career include: Architectural Studies, Architectural Science, Architecture, Landscape Architecture
- **Personal qualities:** effective communication skills, interpersonal skills, organizational skills, willingness to continually learn
- **Applied skills:** ability to read diagrams, schematics, etc., analytical skills, math skills

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** architectural firms, private corporations, government, self-employment
- **Typical hours of employment in Hamilton:** full-time
- **Average salary in Ontario:** \$66,106*

*Based on information available at Ontario JobFutures.ca



FUTURE JOB MARKET

What about my employability? Employment for this occupation is expected to grow about as fast as the average for all occupations over the next few years. Employment in architecture is closely tied to construction activity in the residential, commercial and institutional sectors.

How do I prepare for this position? Today, Architects rely heavily on the use of computer-aided design (CAD) as it allows Architects to produce a wider choice of designs for customers. Those familiar with CAD technology will have better employment prospects.

Future Job Outlook in Hamilton

Current: FAIR*

5 Years: FAIR*

*Based on information available at OntarioJobFutures.ca

Local Employers

Atkinson Engineering Inc., Consulting
www.atkinsonengineering.com

Cianfrone Architect Inc.
www.cianfronearchitect.com

David Premi Architect Inc.
www.dpai.ca

Graff Grguric Architects Inc.
www.2gai.com

McCallum Sather Architects Inc.
www.mccallumsather.com

R.F. Lintack Architect Inc.
www.rflintack.com

Stantec Architecture Ltd.
www.stantec.com

TCA / Thier + Curran Architects Inc.
www.tcarch.ca

Vermeulen Hind Architects
www.vharch.com

Zebroski Associates Ltd., Architect
www.zeborski.com

Related Websites

Ontario Job Futures
www.ontariojobfutures.ca

Career MATTERS
www.ilc.org

Ontario Designers
www.ontariodesigners.com

Building Magazine
www.building.ca

Colleges

Universities

Carleton University
www.carleton.ca

Ryerson University
www.ryerson.ca

University of Guelph
www.uoguelph.ca

University of Toronto
www.utoronto.ca

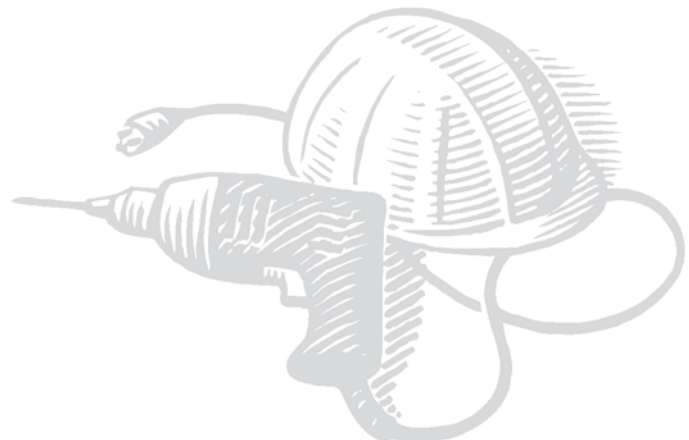
University of Waterloo
www.uwaterloo.ca

Associations

Royal Architectural Institute of Canada
www.raic.org

Ontario Architectural Association
www.oaa.on.ca

Hamilton & Burlington Society of Architects
www.architecturehamilton.com





Architectural Technologist

NOC 2251

What responsibilities will I have?

- Assist in the development of architectural designs
- Analyze building codes, by-laws, space requirements, site requirements and other technical documents and reports
- Prepare drawings, specifications, cost estimates and listings of quantities of material from conceptual drawings and instructions
- Construction of architectural and display models
- Prepare contract and bidding documents
- Supervise drafters, technicians and technologists on the architectural team
- Supervise construction projects and coordinate, monitor and inspect work done by others



What education and training is required?

Currently to become an Architectural Technologist completion of a two to three year diploma program is required as well as two years of work experience. In Ontario, you must be certified by the Ontario Association of Certified Engineering Technicians and Technologists as well as pass the professional practice examination.

To pursue a career as an Architectural Technologist...

- The following high school courses are recommended to prepare for a degree/diploma program: **English, Mathematics, Physics, and Computers**
- Post-secondary education offered at the university/college level related to this career include: Architectural Technology, Residential Architectural Drafting, Architectural Technology Facility Planning Profile
- **Personal qualities:** effective communication skills, organizational skills, ability to multi-task, problem solving, willingness to continually learn
- **Applied skills:** math skills, computer skills, teamwork, ability to read diagrams, schematics, etc.

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** federal and provincial governments, residential building developers, architectural, engineering and other scientific companies
- **Typical hours of employment in Hamilton:** full-time; some overtime
- **Average salary in Ontario:** \$44,164*

*Based on information available at OntarioJobFutures.ca



FUTURE JOB MARKET

What about my employability? Employment for this occupation is expected to grow about as fast as the average for all occupations over the next few years.

How do I prepare for this position? The use of computer design software has increased tremendously for this occupation. Improving computer literacy and familiarizing yourself with these programs will improve employment prospects.

Future Job Outlook in Hamilton

Current: FAIR*

5 Years: FAIR*

*Based on information available at OntarioJobFutures.ca

Local Employers

A.J. Clarke and Associates Ltd.
www.ajclarke.com

Atkinson Engineering Inc.
www.atkinsonengineering.com

Chamberlain Architect Services Ltd.
www.chamberlain-online.com

Cianfrone Architect Inc.
www.ciafronarchitect.com

David Premi Architect Inc.
www.dpai.ca

McCallum Sather Architects Inc.
www.mccallumsather.com

R.F. Lintack Architect Inc.
www.rflintack.com

Sobotec Ltd.
www.sobotec.com

Stantec Architecture Ltd.
www.stantec.com

TCA / Thier + Curran Architects Inc.
www.tcarch.ca

Related Websites

Ontario Job Futures
www.ontariojobfutures.ca

Career MATTERS
www.ilc.org

Monster.ca – Salary Information
www.salarywizard.monster.ca

Skills Canada
www.skillscanada.com

Colleges

Algonquin College
www.algonquincollege.com

Conestoga College
www.conestogac.on.ca

Confederation College
www.confederationc.on.ca

Fanshawe College
www.fanshawec.ca

George Brown College
www.georgebrown.ca

Humber College
www.humber.ca

Loyalist College
www.loyalistic.on.ca

Mohawk College
www.mohawkcollege.ca

Niagara College
www.niagaracollege.ca

Sault College
www.saultc.on.ca

St. Clair College
www.stclaircollege.ca

Universities

Carleton University
www.carleton.ca

University of Waterloo
www.uwaterloo.ca

Associations

Association of Architectural Technologists of Ontario
www.aato.on.ca

Canadian Technology Human Resources Board
www.cthrb.ca

Royal Architectural Institute of Canada
www.raic.org

Ontario Association of Architects
www.oaa.on.ca



Boilermaker

NOC 7262

What responsibilities will I have?

- Read and interpret blueprints to plan work sequence and prepare materials according to project specifications
- Set up and operate heavy-metal working machines such as brakes, rolls, shears, flame cutters and drill presses to cut, shape and form metal into parts or sections
- Fit and weld metal parts or sections together to fabricate boilers, vessels, tanks, heat exchangers, piping and other heavy metal products
- Erect, install and test boilers and other heavy-metal products according to specifications using hand and power tools
- Maintain, repair and replace boilers and other heavy-metal products
- Direct activities of hoist or crane operators and other workers during fabrication, assembly, installation or repair of structures



What education and training is required?

Currently to become a Boilermaker completion of secondary school is usually required. In Ontario, trade certification is not mandatory, however, certification is strongly recommended. Certification tells employers and other workers that you are a skilled professional. To gain trade certification completion of a three to four apprenticeship program or a combination of over four years of work experience in the trade and some high school, college or industry courses in boilermaking is required. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as a Boilermaker...

- The following high school courses are recommended to prepare for a career in this field: **English, Mathematics and Physics**
- Post-secondary education offered at the college level related to this career include: Sheet Metal Worker, Mechanical Technician – Welder Fitter, Welding Engineering Technician Inspection, Fabrication and Welding, Industrial Welding and Fabrication
- **Personal qualities:** manual dexterity, effective communication skills, good physical condition, problem solving, safety conscious
- **Applied skills:** math skills, mechanical skills, ability to read diagrams, schematics, etc., ability to work independently, teamwork

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** boiler fabrication companies, manufacturing companies, ship building businesses, similar industrial establishments
- **Typical hours of employment in Hamilton:** full-time; some shift work
- **Average hourly wage rate in Hamilton:** \$32.80/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability? The employment growth rate for this occupation is expected to be close to the average for all occupations. Although the retirement rate will be average, the number of retiring workers should contribute to job openings.

How do I prepare for this position? You are more likely to succeed if you develop your technical and interpersonal skills.

Future Job Outlook in Hamilton

Current: FAIR*

5 Years: FAIR*

*Based on information available at JobFutures.ca

Local Employers

Union Boiler Company of Hamilton Limited
www.unionboiler.com

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship
www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Interprovincial Standards
www.red-seal.ca

Job Futures
www.jobfutures.ca

Career MATTERS
www.ilc.org

Made With the Trades
www.madewiththetrades.com

Careers in Construction
www.careersinconstruction.ca

Apprenticesearch.com
www.apprenticesearch.com

Colleges

Algonquin College
www.algonquincollege.com

Canadore College
www.canadorec.on.ca

Durham College
www.durhamcollege.ca

Humber College
www.humber.ca

Lambton College
www.lambton.on.ca

St. Lawrence College
www.sl.on.ca

Universities

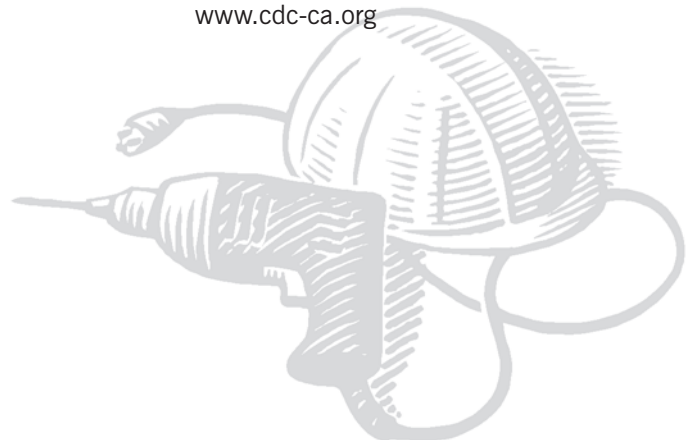
Associations

Canadian Boilermakers
www.boilermakers.ca

Boilermaker Contractors' Association
www.bcacanada.ca

International Brotherhood of Boilermakers – Local 128
www.ibblocal128.org

Construction Sector Council
www.cdc-ca.org





Bricklayer

NOC 7281

What responsibilities will I have?

- Read sketches and blueprints to calculate materials required
- Cut and trim bricks and concrete blocks using hand and power tools
- Prepare and lay bricks, concrete blocks, stone, structural tiles and similar materials to construct or repair walls, foundations and other structures in residential, industrial and commercial construction
- Lay firebricks to line industrial chimneys and smokestacks
- Line or reline furnaces and boilers using acid-resistant bricks
- May restore, clean or paint existing brick structures



What education and training is required?

Currently to become a Bricklayer it is recommended that you take part in an apprenticeship program, which is usually three to four years in length, or have a combination of four years of work experience, some high school, college or industry courses in bricklaying in order to gain trade certification. In Ontario, certification is not mandatory but is strongly recommended. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as a Bricklayer...

- The following high school courses are recommended to prepare for a career in this field: **English, Mathematics, and co-op** is strongly recommended
- Post-secondary education offered at the university/college level related to this career include: Construction Skills Certification, Masonry
- **Personal qualities:** effective communication skills, problem solving, organizational skills
- **Applied skills:** ability to read diagrams, schematics, etc., math skills, technical skills, good physical condition, teamwork

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** residential building developers, building construction firms, exterior construction firms, primary steel producers, construction contractors
- **Typical hours of employment in Hamilton:** full-time; part-time; overtime; work depends on weather conditions
- **Average hourly wage rate in Hamilton:** \$45/hr



FUTURE JOB MARKET

What about my employability? Employment potential for this occupation is expected to remain good; however the demand for Bricklayers depends on construction activity, particularly the residential sector where brick as a building material is fashionable. Moreover, this occupation has an aging workforce which will require replacements for the retiring workers.

How do I prepare for this position? It is expected that the amount of job seekers will match the number of job openings. To prepare for the competition develop your technical skills.

Future Job Outlook in Hamilton

Current: GOOD

5 Years: GOOD

Local Employers

Historia Building Restoration Inc.
www.historiarestoration.ca

Abbey Masonry

Artistik Masonry

Bellano Masonry

Buttress Masonry

C.A. Masonry

DeFaveri Construction Inc.

Dreben Construction Ltd.

E.M. Masonry

GHM Contracting

Gustin Landscape Maintenance Inc.

Mato Masonry

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship
www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Ontario Masonry Training Centre
www.canadamasonrycentre.com/omtc

Local Labour Market Information
www.labourmarketinformation.ca

Interprovincial Standards Red Seal Program
www.red-seal.ca

Job Futures
www.jobfutures.ca

Career MATTERS
www.ilc.org

Made With the Trades
www.madewiththetrades.com

Careers in Construction
www.careersinconstruction.ca

Skills Canada
www.skillscanada.com

Colleges

Algonquin College
www.algonquincollege.com

Fleming College
www.flemingc.on.ca

Universities

McMaster University
www.mcmaster.ca

Associations

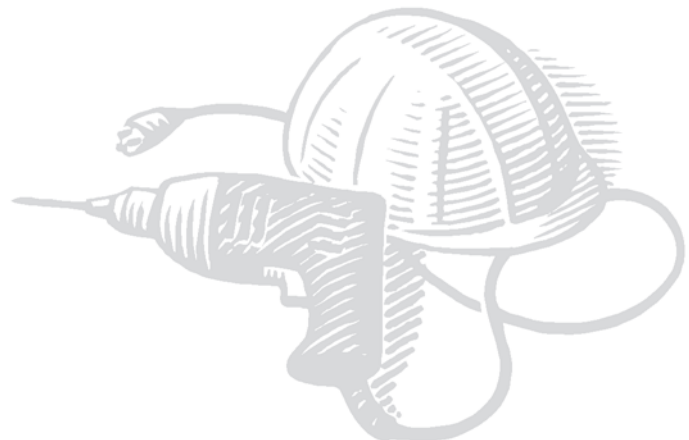
Council of Ontario Construction Association
www.coca.on.ca

Masonry Contractors' Association of Toronto
www.mcat-gta.ca

Canadian Masonry Contractors Association
www.canadianmasonrycentre.com

Cement Association of Canada
www.cement.ca

Hamilton Halton Construction Association
www.hhca.ca





Cabinetmaker

NOC 7272

What responsibilities will I have?

- Read and work from drawings, blueprints, plans or supervisor's instructions and prepare patterns, layouts and specifications for items to be produced
- Operate woodworking machines such as power saws and shapers to cut, shape and assemble wood
- Trim joints and fit parts and subassemblies to form complete units; and glue, clamp and reinforce joints using nails, screws or other fasteners
- Sand surfaces and apply veneer, stain or polish to finished goods
- Repair or restyle furniture, fixtures or other wood products



What education and training is required?

Currently to become a Cabinetmaker completion of secondary school is usually required. In Ontario, trade certification is not mandatory, but is highly recommended. To gain trade certification completion of a four year apprenticeship program or a combination of over four years of work experience in the trade and some high school or college courses in cabinetmaking is required. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as a Cabinetmaker...

- The following high school courses are recommended to prepare for a career in this field: **English, Mathematics, Science and co-op** is strongly recommended
- Post-secondary education offered at the college level related to this career include: Woodworking Technician, Cabinetmaking, Industrial Woodworking Techniques, Furniture Technician
- **Personal qualities:** effective communication skills, problem solving, critical thinking, and safety conscious
- **Applied skills:** math skills, teamwork, and ability to read diagrams, schematics, etc.

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** residential building developers, building construction firms, interior and finishing construction firms, household furniture makers and stores, door and other millwork companies, furniture and fixture companies
- **Typical hours of employment in Hamilton:** full-time
- **Average hourly wage rate in Hamilton:** \$17.20/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability?

Employment potential for this occupation in the Hamilton area is expected to remain good over the next few years, as the building construction trade continues to gain strength in the area. Increasingly, more cabinets are built in factories rather than made-to-order. The market for made-to-order cabinets and furniture has become a specialty market, with room for only the most highly skilled cabinetmakers.

How do I prepare for this position?

The basic skills required for this occupation such as literacy, math skills and wood science skills are rising as skilled cabinetmakers are in demand. Furthermore, many cabinetmakers pursue entrepreneurship opportunities which require business management skills such as word processing, accounting programs, and use of e-mail.

Future Job Outlook in Hamilton

Current: **GOOD***

5 Years: **GOOD***

*Based on information available at LabourMarketInformation.ca

Local Employers

- AcryFlek Industries** www.acryflek.ca
- Baresa Cabinets Inc.** www.baresa.ca
- Bavco Construction Ltd.** www.bavco.ca
- CCW Inc.** www.ccwinc.com
- Contact Construction**
- Crescent Cabinet Co. Ltd.**
www.crescentcabinet.com
- Erik Cabinets Ltd.**
www.erikcabinets.com
- Euroline Custom Cabinets**
- Finelli Cabinets and Millwork**
www.finellincabinetsandmillwork.com
- Glanbrook Stairs and Woodworking Ltd.**
www.glanbrookstairs.com
- Paul's Cabinets and Fixtures Ltd.**
- Valley City Manufacturing** www.valleycity.com
- Woodcraft-Cabinet Concepts**
www.woodcraftcabinets.com
- Wood Valley Kitchens**

Related Websites

- Ministry of Training, Colleges and Universities – Apprenticeship**
www.edu.gov.on.ca/eng/training/apprenticeship/appren.html
- Interprovincial Standards**
www.red-seal.ca
- Local Labour Market Information**
www.labourmarketinformation.ca
- Career MATTERS** www.ilc.org
- Local Skilled Trades Apprentice Information**
www.apprenticetrades.ca
- Careers in Construction**
www.careersinconstruction.ca
- Temperate Forest Foundation**
www.forestinfo.org
- Woodweb** www.woodweb.com
- Skills Canada** www.skillsCanada.com

Colleges

- Algonquin College**
www.algonquincollege.com
- Canadore College**
www.canadorec.on.ca
- Conestoga College**
www.conestogac.on.ca
- Georgian College**
www.georgianc.on.ca
- Humber College**
www.humber.ca
- Mohawk College**
www.mohawkcollege.ca
- St. Clair College**
www.stclaircollege.ca

Universities

Associations

- Canadian Furniture Manufacturer's Alliance**
www.chfaweb.ca
- Canadian Kitchen Cabinet Association**
www.ckca.ca
- Canadian Lumberman's Association**
www.canadianlumbermen.com
- Canadian Wood Council**
www.cwc.ca
- Ontario Home Builder's Association**
www.homesontario.com
- Wood Manufacturing Council**
www.wmc-cfb.ca





Carpenter

NOC 7271

What responsibilities will I have?

- Read and interpret blueprints, drawings and sketches to determine specifications and calculate requirements
- Build foundations, install floor beams, lay sub-flooring and install walls and roofing systems
- Measure, cut and join materials made of wood or wood substitutes
- Repairing and renovating wooden structures
- Prepare cost estimates for clients
- Supervise apprentices and other construction workers



What education and training is required?

Currently, to become a Carpenter the minimum requirement is usually completion of secondary school. To gain trade certification completion of a three to four year apprenticeship program or a combination of four years of work experience, some high school, college or industry courses in carpentry is required. In Ontario, trade certification is not mandatory but is strongly recommended in this field. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as a Carpenter...

- The following high school courses are recommended to prepare for a diploma program: **English and Mathematics**
- Post-secondary education offered at the college level related to this career include: Furniture Technician, Manufacturing Technician, Woodworking Technician and Industrial Woodworking Technician
- **Personal qualities:** interpersonal skill and problem solving
- **Applied skills:** math skills, ability to read diagrams, schematics, etc., and technical skills

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** residential building developers, non-residential building developers, building construction firms, interior and finishing construction firms, self-employment
- **Typical hours of employment in Hamilton:** full-time; overtime
- **Average hourly wage rate in Hamilton:** \$23.80/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability? Employability in this field will remain steady largely due to an aging workforce and local construction activity expected to remain stable. Maintenance, insurance repairs and renovation work do not tend to provide very steady work for carpenters.

How do I prepare for this position? New materials and construction techniques are transforming carpentry. New building techniques affect the skill requirements and the demand for carpenters. To prepare for a career in this field, become more familiar with the use of prefabricated components (such as pre-hung doors and windows) and prefabricated wall panels and stairs. These new systems make installation much quicker but require a new understanding of useful techniques. Also, it is expected that computer skills will become an essential skill as Carpenters may be called on to electronically reference plans and designs.

Future Job Outlook in Hamilton

Current: **GOOD***

5 Years: **GOOD***

*Based on information available at LabourMarketInformation.ca

Local Employers

- Baresa Cabinets Inc.** www.baresa.ca
- Bath Fitter** www.bathfittercareerscda.ca
- Bavco Construction Ltd.** www.bavco.ca
- CDT International** www.cdtcat.com
- D&D Custom Steel Prods Ltd.**
www.ddcustomsteel.com
- AA Framing and Carpentry**
- Aaron MacNeil Custom Framing**
- Al Gee Carpentry**
- Alliance Concrete and Interlock Hamilton**
- Alto Framing**
- A&M Framing**
- Aussem Homes**
- Battaglia Contracting**
- Burke Group**
- Celac Construction Ltd.**
- Chris' Custom Carpentry**
- Coffey & Associates**
- Consumers Choice Home Improvements**
- Cowie Construction**

Related Websites

- Ministry of Training, Colleges and Universities – Apprenticeship**
www.edu.gov.on.ca/eng/training/apprenticeship/appren.html
- Interprovincial Standards Red Seal Program**
www.red-seal.ca
- Local Labour Market Information**
www.labourmarketinformation.ca
- Careers in Construction**
www.careersinconstruction.ca
- Made With the Trades**
www.madewiththetrades.com
- Ontario Job Futures** www.ontariojobfutures.ca
- Career MATTERS** www.ilc.org

Colleges

- Algonquin College**
www.algonquincollege.com
- Canadore College**
www.canadorec.on.ca
- Humber College**
www.humber.ca
- Mohawk College**
www.mohawkcollege.ca
- St. Clair College**
www.stclaircollege.ca

Universities

Associations

- Canadian Lumbermen's Association**
www.canadianlumbermen.com
- Canadian Wood Council**
www.cwc.ca
- Carpenters District Council of Ontario**
www.carpentersdc.com
- Construction Safety Association of Ontario**
www.csa.o.org
- Construction Sector Council**
www.csc-ca.org
- Council of Ontario Construction Associations**
www.coca.on.ca
- Hamilton Halton Construction Association**
www.hhca.ca
- Ontario Construction Secretariat**
www.iciconstruction.com
- Ontario Home Builder's Association**
www.homeontarion.com
- Wood Manufacturing Council**
www.wmc-cfb.ca





Concrete Finisher

NOC 7282

What responsibilities will I have?

- Follow blueprints and instructions to ensure concrete is poured properly into frames or onto prepared surfaces
- Use hand and power tools to compact and level concrete
- Install anchor bolts, steel plates, door sills and other fixtures in freshly poured concrete
- Apply different compounds to finish, harden and seal poured concrete
- Use colours and decorative finishes to create attractive features in floors and walls
- Repair, resurface and replace worn or damaged sections of floors, walls, roads and other concrete structures



What education and training is required?

Currently to become a Concrete Finisher completion of secondary school is usually required. In Ontario, trade certification is not mandatory, however, certification is strongly recommended. Certification tells employers and other workers that you are a skilled professional. To gain trade certification completion of a two to four year apprenticeship program or a combination of over three years of work experience in the trade and some high school, college and industry courses in cement finishing is required.

To pursue a career as a Concrete Finisher...

- The following high school courses are recommended to prepare for a career in this field: **English, Mathematics, Science and Physical Education**
- Post-secondary education offered at the college level related to this career include: Construction Engineering Technician, Construction Techniques, Masonry, Building Construction Technician
- **Personal qualities:** effective communication skills, organizational skills, good physical condition
- **Applied skills:** ability to read diagrams, schematics, etc., math skills, teamwork

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** construction companies, cement and concrete contractors, manufacturers of precast concrete products, self-employment
- **Typical hours of employment in Hamilton:** full-time; overtime during peak periods
- **Average hourly wage rate in Hamilton:** between \$25 - \$45/hr



FUTURE JOB MARKET

What about my employability?

Employment as a Concrete Finisher is found in both the residential and non-residential sectors of the construction industry. Fortunately, those who qualify to work in the residential sector can also find employment in the non-residential sector as skills are transferable. Although employment may be seasonal, with layoffs during winter months, employment for qualified job seekers should remain steady over the next few years. In Hamilton the average age of workers in this field is forty-three and replacement workers are needed.

How do I prepare for this position?

You are more likely to succeed if you develop your technical skills and gain hands-on experience.

Future Job Outlook in Hamilton

Current: GOOD

5 Years: GOOD

Local Employers

Bravo Cement Contracting Inc.
www.bravocement.com

Can-Seal Canadian Concrete Sealing
www.can-seal.ca

Cardi Construction
www.cardiconstruction.com

Coreslab Structures
www.coreslab.com

Europa Concrete
www.europaconcrete.com

Historia Building Restoration Inc.
www.historiarestoration.ca

Quality Sewers and Concrete
www.luvconcrete.com

Army Sewer and Concrete Construction

Battaglia Contracting

Empire Concrete Hamilton Ltd.

Imperial Precast Corp.

Vector Restoration Ltd.

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship
www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Interprovincial Standards
www.red-seal.ca

Local Labour Market Information
www.labourmarketinformation.ca

Career MATTERS
www.ilc.org

Careers in Construction
www.careersinconstruction.ca

Made With the Trades
www.madewiththetrades.com

Apprenticesearch.com
www.apprenticesearch.com

Colleges

Algonquin College
www.algonquincollege.com

Loyalist College
www.loyalistc.on.ca

Mohawk College
www.mohawkcollege.ca

Niagara College
www.niagaracollege.ca

Sault College
www.saultc.on.ca

St. Clair
www.stclaircollege.ca

Universities

Associations

Concrete Floor Contractors Association of Ontario
www.concretefloors.ca

Ready Mixed Concrete Association of Ontario
www.rmcao.org

The Cement Association of Canada
www.cement.ca

Building and Concrete Restoration Association of Ontario
www.bcrao.com

Hamilton Halton Construction Association
www.hhca.ca





Construction Craft Labourer

NOC 7611

What responsibilities will I have?

- Load and unload construction materials, and move materials to work areas
- Erect and dismantle concrete forms, scaffolding, ramps, catwalks shoring and barricades required at construction sites
- Mix, pour and spread materials such as concrete and asphalt
- Assist trades persons such as carpenters, bricklayers, cement finishers, roofers and glaziers in construction activities
- Assist heavy equipment operators to secure special attachments to equipment, signal operators to guide them in moving equipment and provide assistance in other activities
- Assist in aligning pipes and perform related activities during oil and gas pipeline construction
- Assist in drilling and blasting rock at construction sites
- Assist in demolishing buildings using prying bars and other tools, and sort, clean and pile salvaged materials
- Remove rubble and other debris at construction sites using rakes, shovels, wheelbarrows and other equipment
- Operate pneumatic hammers, vibrators and tampers as directed
- Clean up chemical spills and other contaminants, and remove asbestos and other hazardous materials
- Oil and grease hoists and similar equipment
- Direct traffic at or near construction sites
- Perform other activities at construction sites, as directed



What education and training is required?

Currently to become a Construction Craft Labourer completion of secondary school is required. In addition, completion of a college diploma in a related field as well as some experience as a general construction labourer may be required by some employers.

To pursue a career as a Construction Craft Labourer...

- The following high school courses are recommended to prepare for a career in this field: **English, Mathematics and Physical Education**
- Post-secondary education offered at the college level related to this career include: Construction Engineering Technician, Construction Engineering Technology, Engineering Technologies
- **Personal qualities:** effective communication skills, good physical condition, safety conscious, problem solving, critical thinking
- **Applied skills:** ability to read diagrams, schematics, etc., math skills, teamwork

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** construction companies, trade and labour contractors
- **Typical hours of employment in Hamilton:** full-time; overtime during peak periods
- **Average hourly wage rate in Hamilton:** between \$18 - \$25/hr



FUTURE JOB MARKET

What about my employability? Employment for this occupation is expected to remain good over the next few years especially during peak periods in the construction industry (mainly summer months).

Employment is favourable for qualified Construction Craft Labourers as they work in all four sectors of construction: new home building and renovation, heavy industrial, institutional and commercial, and civil engineering.

How do I prepare for this position? Although completion of secondary school is usually the minimum requirement for the occupation, employers value training at the post-secondary level.

Future Job Outlook in Hamilton

Current: **GOOD**

5 Years: **GOOD**

Local Employers

Alto Mar Custom Homes and Renovations

Ancaster Paving

www.ancasterpaving.com

Arvin Air Systems Limited

www.arvinair.com

Baresa Cabinets Inc.

www.baresa.ca

Birmingham Construction Solutions

www.birminghammer.com

Braun Nursery Limited

www.braungroup.com

Campbell Glass and Mirror

www.campbellglass.ca

Capela's Roofing

www.capelasroofing.com

Cardi Construction

www.cardiconstruction.com

City of Hamilton

www.myhamilton.ca

Convoy Supply Canada Ltd.

www.convoy-supply.com

Danasy Landscaping and Maintenance Ltd.

www.danasylandscaping.com

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship

www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Job Futures

www.jobfutures.ca

Career MATTERS

www.ilc.org

Careers in Construction

www.careersinconstruction.ca

Colleges

Algonquin College

www.algonquincollege.com

Conestoga College

www.conestogac.on.ca

Fanshawe College

www.fanshawec.ca

Loyalist College

www.loyalistic.on.ca

Mohawk College

www.mohawkcollege.ca

Niagara College

www.niagaracollege.ca

St. Clair College

www.stclaircollege.ca

Universities

Associations

Council of Ontario Construction Associations

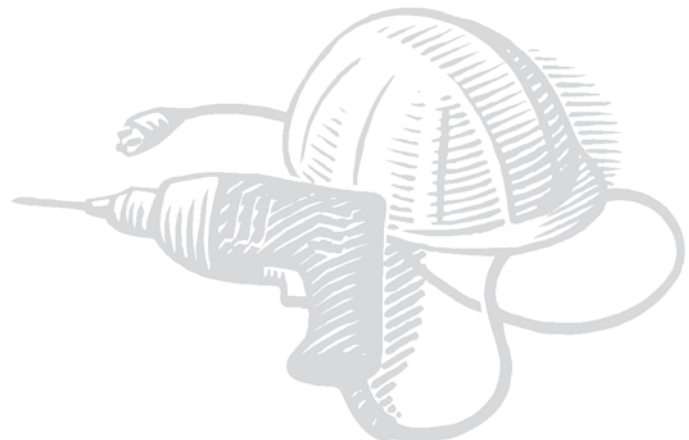
www.coca.on.ca

Labourers International Union of North America (LIUNA)

www.liuna.org

LIUNA Local 837 (Hamilton)

1-905-529-1116





Crane Operator

NOC 7371

What responsibilities will I have?

- Perform pre-operational inspection, and calculate crane capacities and weight to prepare for rigging and hoisting
- Operate pile driving cranes to drive pilings into earth to provide support for buildings and other structures
- Operate cranes equipped with dredging attachments to dredge waterways and other areas
- Operate gantry cranes to load and unload ship cargo at port side
- Operate locomotive cranes to move objects and materials at railway yards
- Operate bridge or overhead cranes to lift, move and place plant machinery and material
- Operate offshore oil rig cranes to unload and reload supply vessels
- Operate cranes mounted on boats or barges to lift, move and place equipment and materials
- Operate dragline cranes to expose coal seams and ore deposits at open pit mines
- May assemble tower cranes on site
- Perform routine maintenance work such as cleaning and lubricating cranes



What education and training is required?

Currently to become a Crane Operator the minimum requirement is usually the completion of secondary school. In Ontario, depending on the type of crane you choose to operate, trade certification may be mandatory. As a tower crane operator and mobile crane operator Ontario demands trade certification. To gain trade certification, completion of a one to three year apprenticeship program or some high school, college or industry courses in crane operating is usually required. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as a Crane Operator...

- The following high school courses are recommended to prepare for a career in this field: **English, Mathematics, and Mechanics**
- **Personal qualities:** hand-eye coordination, safety conscious, effective communication skills
- **Applied skills:** ability to use 3-D visualization, math skills, ability to work independently

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** residential building developers, building construction firms, construction site maintenance firms, primary steel producers, electric power companies, waste materials wholesalers, metal and metal products
- **Typical hours of employment in Hamilton:** full-time; overtime; shift work
- **Average hourly wage rate in Hamilton:** \$23/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability? Employers are searching for qualified crane operators all over Canada. It is expected that the retirement rate will be above average thus there will be a high need to replace these workers.

How do I prepare for this position? You are likely to succeed if you are knowledgeable about computers and robotics. Gaining experience and certification will set you aside from other applicants.

Future Job Outlook in Hamilton

Current: FAIR

5 Years: GOOD

Local Employers

Dofasco Inc.

www.dofasco.ca

Hamilton Steel Bar (2007) Inc.

www.hsbsteel.com

Steelcare Inc.

www.steelcare.com

Waxman Waste Management

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship

www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Interprovincial Standards

www.red-seal.ca

Made With the Trades

www.madewiththetrades.com

Job Futures

www.jobfutures.ca

Ontario Job Futures

www.ontariojobfutures.ca

Skills Work

www.skillswork.com

Apprenticesearch.com

www.apprenticesearch.com

Career Colleges

Crane Training Canada

www.cranetraining.ca

Operating Engineers Training Institute of Ontario

www.oetio.com

Universities

Associations

Construction Sector Council

www.csc-ca.org

International Union of Operating Engineers

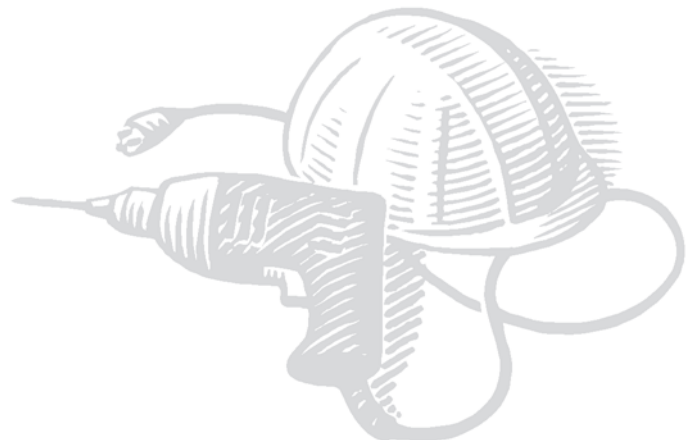
www.iuoelocal793.org

Ontario Construction Secretariat

www.iciconstruction.com

Toronto Construction Association

www.tcsconnect.org





Drywall Installer

NOC 7284

What responsibilities will I have?

- Measure, cut and fit drywall sheets for installation on walls and ceilings
- Position and secure sheets to metal or wooden studs or joists
- Cut and install metal corner beads to protect exterior corners
- Fill joints, nail indentations, holes and cracks with joint compound using trowel and broad knife
- Tape over joints using taping machine and embed tape in compound
- Smooth out excess compound and allow coat to dry
- Apply successive coats of compound and sand seams and joints
- Fabricate and install suspended metal ceiling grids and place in panels to form acoustical and coffered ceilings



What education and training is required?

Currently to become a Drywall Installer completion of secondary school is usually required. In addition, completion of a 3-4 year apprenticeship program or combination of three years work experience and some high school, college or industry courses is required. In Ontario, trade certification is available for Drywall Installers but is not mandatory.

To pursue a career as a Drywall Installer...

- The following high school courses are recommended to prepare for a diploma program: **English and Mathematics**
- **Personal qualities:** interpersonal skills, good physical condition, safety conscious
- **Applied skills:** math skills, technical skills, teamwork

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** construction companies, construction contractors, drywall contractors, self-employment
- **Typical hours of employment in Hamilton:** full-time; occasional weekends and overtime; some travel
- **Average hourly wage rate in Hamilton:** \$24.20/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability? As a Drywall Installer, work is subject to season swings – slowing down slightly between September and February. However, there is a shortage of Drywall Installers in many parts of Ontario and employment in this field is expected to grow faster than the average for most occupations over the next few years. Also, due to the aging workforce, this occupation will experience significant retirement over the next few years.

How do I prepare for this position? You will be more likely to succeed if you develop your technical skills.

Future Job Outlook in Hamilton

Current: **GOOD***

5 Years: **GOOD***

*Based on information available at LabourMarketInformation.ca

Local Employers

Bavco Construction Ltd.
www.bavco.ca

CDT International
www.cdtcat.com

Leons Insulation
www.leonsinsulation.com

D'Orazio Construction and Design Inc.

Finelli Engineering Inc.

Sona Construction Ltd.

Vauderlac Developments

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship
www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Apprenticesearch.com
www.apprenticesearch.com

Made With the Trades
www.madewiththetrades.com

Careers in Construction
www.careersinconstruction.ca

Career MATTERS
www.ilc.org

Colleges

Universities

Associations

Interior Systems Contractors Association
www.isca.ca

Association of the Wall and Ceiling Industry
www.awci.org

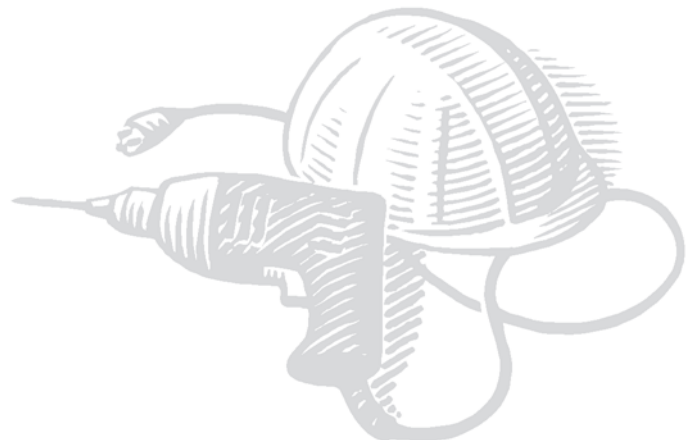
Hamilton-Halton Construction Association
www.hhca.ca

Acoustical Association of Ontario
www.aao-online.ca

Canadian Acoustical Association
www.caa-aca.ca

Canadian Home Builders' Association
www.chba.ca

Construction Sector Council
www.csc.ca.org





Electrician

NOC 7241

What responsibilities will I have?

- Conduct preventive maintenance programs and keep maintenance records
- Read and interpret drawings, circuit diagrams and electrical code specifications to determine wiring layouts for new or existing installations
- Install brackets and hangers to support electrical equipment
- Install, replace and repair lighting fixtures and electrical control and distribution equipment
- Splice, join and connect wire to fixtures and components to form circuits
- Test continuity of circuits using test equipment to ensure compatibility and safety of system, following installation, replacement or repair



What education and training is required?

Currently to become an Electrician completion of secondary school is required. In Ontario, trade certification is compulsory for construction, domestic and rural electricians. To gain trade certification completion of a four to five year apprenticeship program is required. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as an Electrician...

- The following high school courses are recommended to prepare for a diploma program: **English, Mathematics, and Physics**
- Post-secondary education offered at the college level related to this career include: Electrical Engineering Technician, Electrician (Construction and Maintenance), Industrial Electrician Basics
- **Personal qualities:** interpersonal skills, problem solving, decision making, safety conscious, willingness to continually learn
- **Applied skills:** math skills, technical skills, ability to read diagrams, schematics, etc., analytical skills, teamwork

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** electric power companies, electrical construction firms
- **Typical hours of employment in Hamilton:** full-time; often work in confined spaces; some outdoor work; some travel
- **Average hourly wage rate in Hamilton:** start - \$21.61/hr; after 5 years - \$41.76/hr; Journey person - \$51.83/hr



FUTURE JOB MARKET

What about my employability? As an Electrician employment in this trade is sensitive to economic conditions in the construction industry. During peak construction periods, employers address short-term labour needs by sub-contracting electrical work and hiring through a union hiring hall. When hiring, employers value logical thinking, problem solving skills, and math skills related to the job. Recruitment is driven primarily by the need to replace retiring workers.

How do I prepare for this position? To prepare for a career as an Electrician it is important to develop computer and management skills as new integrated systems require additional skills.

Future Job Outlook in Hamilton

Current: FAIR

5 Years: FAIR

Local Employers

Avon Engineering Ltd.

www.avonengineering.com

Bartonair Fabrications

www.bartonairfab.com

Brown Boggs Foundry and Machine Co.

www.brownboggs.com

David Lopinski Electric

www.dlopinskielectric.com

Fairway Electrical Services Inc.

www.fairwayelectrical.com

Hamilton Industrial Crane Services

www.hics.ca

Walters Inc.

www.waltersinc.com

O'Connor Electric

Weston Bakeries Ltd.

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship

www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Interprovincial Standards Red Seal Program

www.red-seal.ca

Local Labour Market Information

www.labourmarketinformation.ca

Careers in Construction

www.careersinconstruction.ca

Made With the Trades

www.madewiththetrades.com

IBEW Local Union 105

www.ibew105.com

Electrical Safety Authority

www.easinspection.com

Apprenticesearch.com

www.apprenticesearch.com/fpTrades/Electrician.asp

Career MATTERS

www.ilc.org

Colleges

Algonquin College

www.algonquincollege.com

Conestoga College

www.conestogac.on.ca

Humber College

www.humber.ca

Mohawk College

www.mohawkcollege.ca

Universities

Associations

International Brotherhood of Electrical Workers – Hamilton

www.ibew105.com

International Brotherhood of Electrical Workers Construction Council of Ontario

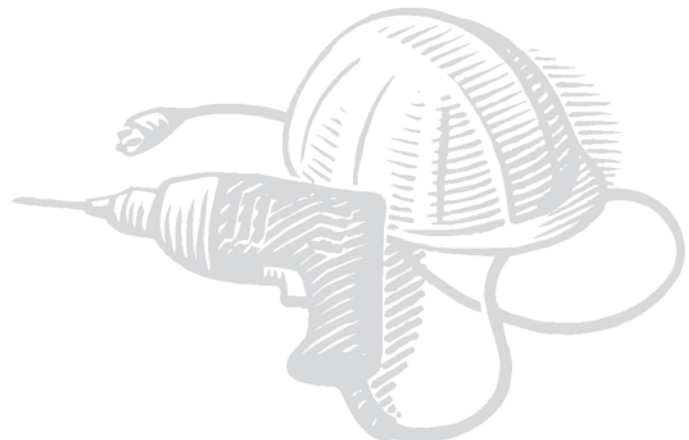
www.ibewcco.org

Canadian Electrical Contractors Association

www.ceca.org

Ontario Construction Secretariat

www.iciconstruction.com





Elevator Mechanic

NOC 7318

What responsibilities will I have?

- Read and interpret blueprints to determine layout of system components
- Perform preparatory construction work including steel work, wiring and piping
- Install elevators, escalators, moving walkways, dumbwaiters and related equipment according to specifications
- Install and wire electric and electronic control system devices
- Install, test and adjust safety control devices
- Test operation of newly install equipment
- Troubleshoot electrical or mechanical system failures
- Disassemble defective units and repair or replace worn parts
- Adjust valves, ratchets, seals, brake linings and other components
- Carry out preventative maintenance programs to ensure public safety



What education and training is required?

Currently to become an Elevator Mechanic completion of secondary school is usually required. In Ontario trade certification is voluntary, however, certification is strongly recommended. Certification tells employers and other workers that you are a skilled professional. To gain trade certification completion of a four to five year apprenticeship program or a combination of over four years of work experience and some high school, college or industry courses in elevator construction is required.

To pursue a career as an Elevator Mechanic...

- The following high school courses are recommended to prepare for a career in this field: **English, Mathematics and Mechanics**
- Post-secondary education offered at the college level related to this career include: Elevating Devices Mechanic
- **Personal qualities:** safety conscious, problem solving, willingness to continually learn
- **Applied skills:** mechanical skills, math skills, computer skills, analytical skills

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** elevator construction and maintenance companies
- **Typical hours of employment in Hamilton:** full-time; overtime
- **Average hourly wage:** \$21.83/hr*

*Based on information available at JobFutures.ca



FUTURE JOB MARKET

What about my employability? Although the retirement rate will likely be average, the number of retiring workers should contribute to job openings. The number of job seekers will likely match the number of job openings.

How do I prepare for this position? Gaining certification through the Technical Standards and Safety Authority will greatly increase your employability as employers value certification in this area.

Future Job Outlook in Hamilton

Current: FAIR*

5 Years: FAIR*

*Based on information available at JobFutures.ca

Local Employers

Delta Elevator

www.delta-elevator.com

Thyssen Krupp Elevator

www.thyssenkruppelevator.com

Safeguard Elevator Maintenance Ltd.

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship

www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Technical Standards and Safety Authority

www.tssa.org/regulated/elevating/certification/default.asp

Career MATTERS

www.ilc.org

Made With the Trades

www.madewiththetrades.com

Apprenticesearch.com

www.apprenticesearch.com

Careers in Construction

www.careersinconstruction.ca

Colleges

Durham College

www.durhamcollege.ca

Universities

Associations

International Union of Elevator Constructor

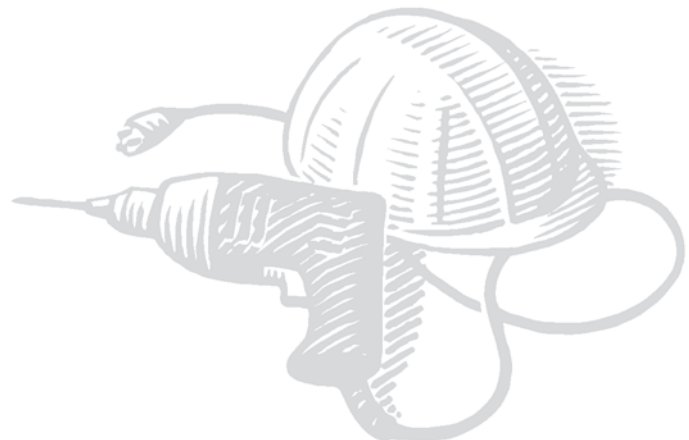
www.iuec.org

Ontario Construction Secretariat

www.iciconstruction.com

Elevator Construction Local 90 (Hamilton)

1-905-383-9166





Estimator

NOC 2234

What responsibilities will I have?

- Prepare cost estimates of materials, labour and equipment for construction projects based on contract bids, quotes, schematic drawings and specifications
- Manage and coordinate construction projects and prepare construction progress schedules
- Liaise, consult and communicate with engineers, architects, owners, contractors and subcontractors on changes and adjustments to cost estimates
- Overseeing worker payment and set up cost monitoring and reporting systems



What education and training is required?

Currently to become an Estimator you are required to complete a college diploma program or several years of experience in a related trade (such as plumbing, carpentry or electrical). Also, professional certification is available through the Gold Seal Certification Program.

To pursue a career as an Estimator...

- The following high school courses are recommended to prepare for a degree/diploma program: **English, Mathematics, Computers, Physics and co-op** is strongly recommended
- Post-secondary education offered at the university/college level related to this career include: Architectural Technician, Building Construction Technician, Construction Engineering Technician, Building Restoration Technician, Civil Engineering
- **Personal qualities:** interpersonal skills, problem solving, and effective communication skills
- **Applied skills:** math skills, ability to read diagrams, schematics, etc., computer skills, and leadership skills

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** commercial construction companies, industrial construction companies, major electrical, mechanical, and trade contractors, residential construction companies, building construction firms, highway and heavy construction firms, architectural, engineering and other scientific companies, electric power companies, provincial and municipal governments
- **Typical hours of employment in Hamilton:** full-time
- **Average salary:** \$54,799*

*Based on information available at OntarioJobFutures.ca



FUTURE JOB MARKET

What about my employability? Employment for this occupation is expected to grow about as fast as the average for all occupations through the year 2009. Employment for this occupation often moves in tandem with the construction sector.

How do I prepare for this position? Gaining experience through co-operative education and developing computer expertise will greatly increase employment prospects as a Construction Estimator.

Future Job Outlook in Hamilton

Current: FAIR*

5 Years: FAIR*

*Based on information available at OntarioJobFutures.ca

Local Employers

Barclay Construction Group
www.barclayconstruction.com

Branthaven Homes
www.branthavenhomes.com

CCW Inc.
www.ccwinc.com

Cochren Foundation & Repair Co.
www.cochren.com

Ira McDonald Construction Ltd.
www.iramcdonald.com

PCL Constructors Canada Inc.
www.canada.pcl.com

G.S. Wark Ltd. General Contractors
www.wark.net

Colleges

Algonquin College
www.algonquincollege.com

Conestoga College
www.conestogac.on.ca

Fanshawe College
www.fanshawec.ca

George Brown College
www.georgebrown.ca

Loyalist College
www.loyalistcollege.com

Mohawk College
www.mohawkcollege.ca

Niagara College
www.niagaracollege.ca

Sault College
www.saultc.on.ca

Related Websites

Gold Seal Certification Program
www.goldsealcertification.com

Canadian Institute of Quantity Surveys
www.ciqs.org

Careers in Construction
www.careersinconstruction.ca

Ontario Job Futures
www.ontariojobfutures.ca

Canadian Technological Human Resources Board
www.cthrd.ca

Career MATTERS
www.ilc.org

Universities

Associations

Ontario Municipal Engineers Association
www.municipalengineers.on.ca

Canadian Construction Association
www.cca-acc.com

Council of Ontario Construction Associations
www.coca.on.ca

Hamilton Halton General Contractors Association
www.hhca.ca





Exterior Finisher

NOC 7441

What responsibilities will I have?

- Read blueprints or job order specifications to determine layout and installation procedures
- Develop work plans
- Cut and shape materials and join them with nails, screws, bolts or glue
- Repair and maintain installed products
- Provide estimates to clients, who may be individuals, businesses or other construction contractors



What education and training is required?

Currently to become an Exterior Finisher completion of secondary school is usually required. Exterior Finishers generally work both the residential and commercial sectors of the construction industry. Each sector requires various skills and experience; however, employers in both sectors do recommend Exterior Finishers become specialists in siding, stucco, panel installation, waterproofing, vapor barriers, caulking, blueprint reading, and safety.

To pursue a career as an Exterior Finisher...

- The following high school courses are recommended to prepare for a career in this field: **English and Mathematics**
- Post secondary education offered at the college level related to this career include: Construction Carpentry Techniques, Building Renovation Technician
- **Personal qualities:** safety conscious, problem solving
- **Applied skills:** ability to read diagrams, schematics, etc., math skills

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** construction companies, carpentry contractors, maintenance departments, self-employment
- **Typical hours of employment in Hamilton:** full-time; overtime during peak periods
- **Average hourly wage rate in Hamilton:** House siding installers earn an average hourly wage of \$16.40/hr while high-rise restoration mechanics earn between \$25 - \$45/hr.



FUTURE JOB MARKET

What about my employability? While national resources suggest residential and commercial installers may find limited employment now and in the future, local employers suggest a constant demand for specialists in this area. As buildings are aging, exterior restoration mechanics, including all types of exterior finishing, will become more sought after by the industry.

How do I prepare for this position? Unfortunately, there are few specialized training programs offered for this occupation. You will have a better chance of employment if you have experience in product installation, repair or servicing.

Future Job Outlook in Hamilton

Current: GOOD

5 Years: GOOD

Local Employers

Beverly Hills Home Improvements
www.beverlyhillshome.ca

Gerry's Roofing and Siding Inc.
www.gerrysroofing.ca

Historia Building Restoration Inc.
www.historiarestitution.ca

Sharp Exteriors
www.sharpexteriors.com

Walnut Creek Home Improvements
www.walnutcreekhomes.ca

Related Websites

Local Labour Market Information
www.labourmarketinformation.ca

Careers in Construction
www.careersinconstruction.ca

Career MATTERS
www.ilc.org

Colleges

Algonquin College
www.algonquincollege.com

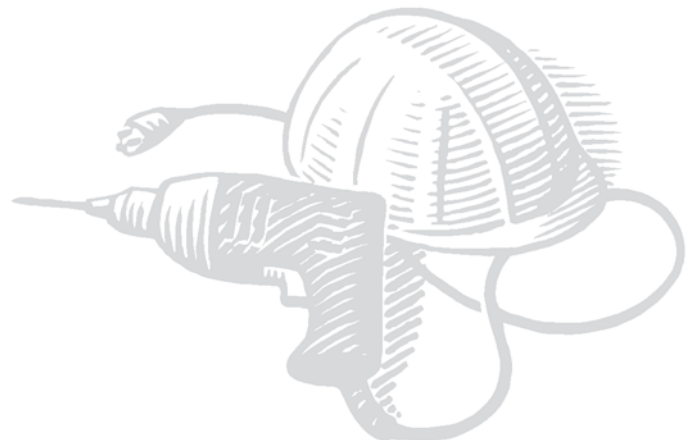
Fanshawe College
www.fanshawec.ca

George Brown College
www.georgebrown.ca

Universities

Associations

Hamilton Halton Construction Association
www.hhca.ca





Floor Covering Installer

NOC 7295

What responsibilities will I have?

- Inspect, measure and mark surfaces to be covered
- Measure, cut and fasten underlay and underpadding
- Measure, cut and install carpeting using hand or machine stitcher, seaming iron, bonding tape or other bonding materials
- Stretch carpeting using knee-kicker or power stretcher and secure carpeting to floor or other surfaces using staple gun or other devices
- Measure, cut and install resilient floor covering using adhesive, rollers and other hand tools
- Install hardwood floors, such as strip floors, block floors or plank floors, using glue, staples, nails or other means
- Inspect and repair damaged floor coverings
- May estimate material and labour costs



What education and training is required?

Currently to become a Floor Covering Installer completion of secondary school is required. In Ontario trade certification is voluntary, however, certification is strongly recommended. Certification tells employers and other workers that you are a skilled professional. To gain trade certification completion of a two to three year apprenticeship program or a combination of over four years of work experience, some high school, college or industry courses in floor covering installation is required. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as a Floor Covering Installer...

- The following high school courses are recommended to prepare for a career in this field: **English, Mathematics and Business**
- **Personal qualities:** good physical condition, interpersonal skills, problem solving, organizational skills
- **Applied skills:** teamwork, math skills

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** carpet outlets, construction companies, floor covering contractors, self-employment
- **Typical hours of employment in Hamilton:** full-time
- **Average hourly wage rate:** \$17.61/hr*

*Based on information available at JobFutures.ca



FUTURE JOB MARKET

What about my employability? Job opportunities in this field are linked to growth in the new and re-modeled residential housing market, as well as new commercial construction.

How do I prepare for this position? Improving your customer service skills will greatly assist you in this occupation as you will often be consulting with clients.

Future Job Outlook in Hamilton

Current: FAIR*

5 Years: FAIR*

*Based on information available at JobFutures.ca

Local Employers

Adamson Flooring

www.adamsonflooring.ca

Alexanian Carpet & Flooring

www.alexanian.com/canada

Giant Carpet & Flooring

www.giantcarpet.com

Home Tile & Flooring Ltd.

www.hometile.com

Jonathon's Perron Floor Coverings

www.jonathonsflooringcoverings.com

Russ Hayes Co. Ltd.

www.russhayes.com

Sears Floor Covering Centre

www.searsfloor.ca

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship

www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Interprovincial Standards

www.red-seal.ca

Job Futures

www.jobfutures.ca

Career MATTERS

www.ilc.org

Careers in Construction

www.careersinconstruction.ca

Made With the Trades

www.madewiththetrades.com

Apprenticesearch.com

www.apprenticesearch.com

Colleges

Universities

Associations

Floor Covering Installation Contractors Association

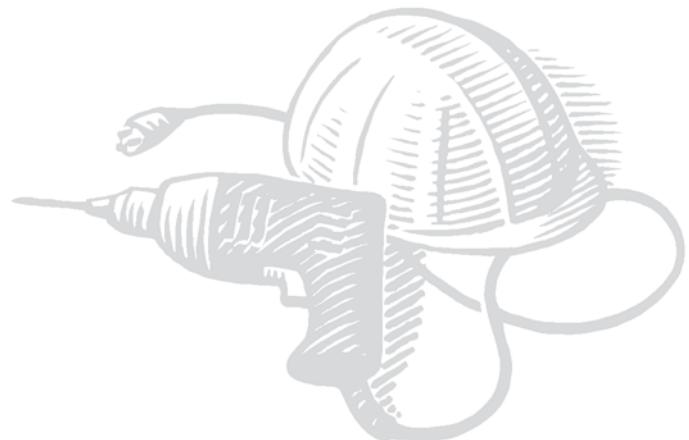
www.fcica.com

Floor Installation Association of North America

www.fiana.org

National Wood Flooring Association

www.woodfloors.org





Gas Technician

NOC 7253

What responsibilities will I have?

- Study drawings and specifications to determine the layout of the installation and materials required
- Measure and mark reference points for installation of gas lines between gas unit and gas equipment
- Install, maintain gas meters and regulators and gas lines between gas meter
- Install, maintain and service gas heating units and their components, such as burners, valves and automatic controls
- Repair and service gas appliances and related equipment
- Test and replace defective equipment or components
- Test and adjust control mechanisms and check pipes and piping connections for gas leaks using gas detecting devices
- Attend gas escape calls and assist in the investigation of gas fires and explosions
- Prepare reports on work performed and condition of facilities
- Advise clients regarding standards, safety features and maintenance of gas units and system
- Convert motor vehicles or appliances to use natural gas fuels



What education and training is required?

Currently to become a Gas Technician completion of secondary school is usually required. In Ontario, trade certification is voluntary, however, certification is strongly recommended. To gain trade certification completion of a three to four year apprenticeship program or several years of work experience and some high school, college or industry courses in pipefitting is usually required. Many employers of this trade look to hire provincially licensed Gas Technicians.

To pursue a career as a Gas Technician...

- The following high school courses are recommended to prepare for a career in this field: **English, Mathematics and Mechanics**
- Post-secondary education offered at the college level related to this career include: Gas Technician, Gas and Oil Burner Technician
- **Personal qualities:** safety conscious, willingness to continually learn, problem solving
- **Applied skills:** ability to read diagrams, schematics, etc., math skills, mechanical skills

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** gas utility companies, gas servicing companies
- **Typical hours of employment in Hamilton:** full-time
- **Average hourly wage rate in Hamilton:** \$18.80/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability? Employment in this occupation will remain fair over the next several years. With experience you will increase job mobility to supervisory positions.

How do I prepare for this position? You are more likely to succeed if you develop interpersonal skills as well as gain provincial licensing.

Future Job Outlook in Hamilton

Current: FAIR*

5 Years: FAIR*

*Based on information available at CareersInConstruction.ca

Local Employers

Union Gas
www.uniongas.com

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship
www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Technical Standards and Safety Authority
www.tssa.org

Career MATTERS
www.ilc.org

Colleges

Algonquin College
www.algonquincollege.com

Conestoga College
www.conestogac.on.ca

Durham College
www.durhamcollege.ca

George Brown College
www.georgebrown.ca

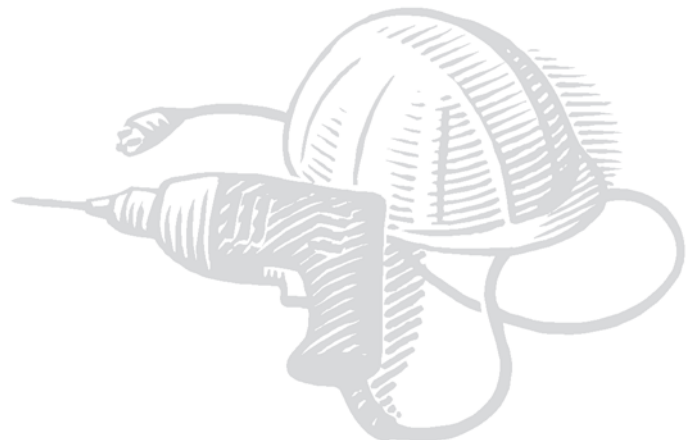
Georgian College
www.georgianc.on.ca

Mohawk College
www.mohawkcollege.ca

Universities

Associations

Ontario Pipe Trades Council
www.optc.org





Glazier

NOC 7292

What responsibilities will I have?

- Read and interpret blueprints and specifications to determine type and thickness of glass, frame, installation procedure and materials required
- Measure and mark glass and cut glass using glass cutters or computerized cutter
- Tint glass and create patterns on glass by etching, sandblasting or painting designs
- Assemble, erect and dismantle scaffolds, rigging and hoisting equipment
- Position glass panes into frames and secure glass
- Assemble and install prefabricated glass, mirrors or glass products on walls, ceilings or exteriors of buildings
- Repair or replace damaged or broken glass
- May prepare cost estimates for customers or clients



What education and training is required?

Currently to become a Glazier completion of secondary school is usually required. In Ontario trade certification is voluntary, however, certification is strongly recommended. Certification tells employers and other workers that you are a skilled professional. To gain trade certification, completion of a three to four year apprenticeship program or a combination of over four years of work experience and some high school, college, or industry courses is required. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as a Glazier...

- The following high school courses are recommended to prepare for a career in this field: **English, Mathematics, and Physics**
- **Personal qualities:** interpersonal skills, problem solving, safety conscious
- **Applied skills:** ability to read diagrams, schematics, etc., math skills

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** construction glass installation contractors, retail service and repair shops, glass fabrication shops, self-employment
- **Typical hours of employment in Hamilton:** full-time
- **Average hourly wage rate in Hamilton:** \$24/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability? Employment for this occupation is expected to remain steady over the next few years. Those with a wide range of skills will increase employability.

How do I prepare for this position? Gaining hands on experience through an apprenticeship or co-op program will greatly improve your employability.

Future Job Outlook in Hamilton

Current: FAIR*

5 Years: FAIR*

*Based on information available at CareersInConstruction.ca

Local Employers

Apple Auto Glass

www.appleautoglass.com

Campbell Glass and Mirror

www.campbellglass.ca

Standard Auto Glass

www.standardautoglass.ca

The Windshield Centre

www.windshieldcentre.ca

Eastway Glass Centre Ltd.

Precision Glass Installation

Speedy Auto Glass

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship

www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Interprovincial Standards

www.red-seal.ca

Local Labour Market Information

www.labourmarketinformation.ca

Career MATTERS

www.ilc.org

Apprenticesearch.com

www.apprenticesearch.com

Careers in Construction

www.careersinconstruction.ca

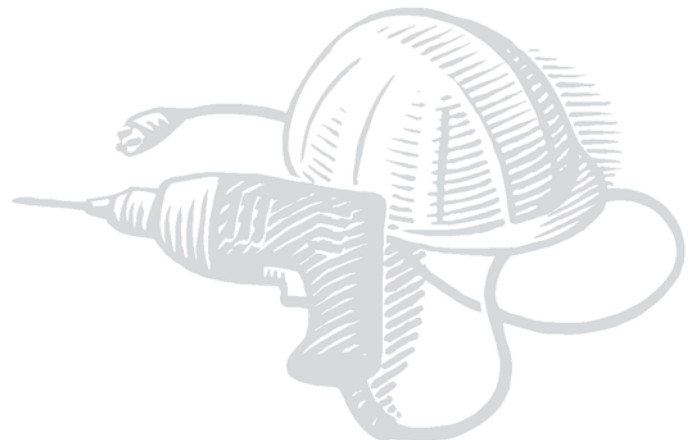
Colleges

Universities

Associations

Ontario Construction Secretariat

www.iciconstruction.com





Heavy Equipment Mechanic

NOC 7312

What responsibilities will I have?

- Check bull dozers, cranes, graders and other heavy construction, logging and mining equipment for proper performance
- Inspect equipment to detect faults and malfunctions and diagnose to determine extent of repair required
- Adjust equipment and repair or replace defective parts, components or systems, using hand and power tools
- Test repaired equipment for proper performance and to ensure that work meets manufacturers' specifications
- Clean, lubricate and perform other routine maintenance work on equipment
- Perform repair work on heavy trucks



What education and training is required?

Currently to become a Heavy Equipment Mechanic completion of secondary school is usually required. To gain trade certification completion of a three to five year apprenticeship program or a combination of four years work experience, some high school, college or industry courses in heavy equipment repair is required. In Ontario, trade certification is not mandatory but is strongly recommended in this field. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as a Heavy Equipment Mechanic...

- The following high school courses are recommended to prepare for a career in this field: **English, Mathematics, Mechanics and Physics**
- Post-secondary education offered at the college level related to this career include: Motive power Technician, Truck Repair and Maintenance, Motive Power Techniques – Heavy Equipment, Heavy Equipment Operator, Diesel Equipment Mechanic, Automotive Service Technician, Motive Power Fundamentals
- **Personal qualities:** effective communication skills, good physical condition, ability to multi-task, willingness to continually learn
- **Applied skills:** mechanical skills, ability to read diagrams, schematics, etc.

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** heavy equipment dealers, establishments that own and operate heavy equipment in mining, manufacturing, transportation and construction companies, heavy equipment rental and service establishments
- **Typical hours of employment in Hamilton:** full-time; shift work; occasional overtime
- **Average hourly wage rate in Hamilton:** \$21.38/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability? Employment for this occupation is expected to grow about as fast as the average over the next few years. This position, while challenging, relatively well paid, and rewarding, has endured an unglamorous reputation. As a result, demand for qualified mechanics exceeds supply.

How do I prepare for this position? With constant change in equipment technology it is necessary for Heavy Duty Mechanics to be flexible and have the capacity to constantly upgrade and learn new skills. The technology used in heavy equipment is becoming more sophisticated thus becoming familiar with computerized diagnostic equipment will increase your employability.

Future Job Outlook in Hamilton

Current: **GOOD***

5 Years: **GOOD***

*Based on information available at LabourMarketInformation.ca

Local Employers

Altruck International Truck Centres
www.idealease.com

Battlefield Equipment
www.battlefieldequipment.ca

Birmingham Construction Solutions
www.birminghamhammer.com

CDT International
www.cdtcat.com

DeSantis Crane Service Inc.
www.desantiscrane.com

GO Transit
www.gotransit.com

Greco Brothers Mfg. Co. Ltd.
www.grecobros.com

Hamilton Industrial Crane Service
www.hics.ca

Hamilton International Airport Ltd.
www.flyhi.ca

Heddle Marine Service Inc.
www.heddlemarine.com

The Hamilton Street Railway Company
www.myhamilton.ca

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship
www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Local Labour Market Information
www.labourmarketinformation.ca

Interprovincial Standards Program
www.red-seal.ca

Career MATTERS www.ilc.org

Careers in Construction
www.careersinconstruction.ca

Skilled Trades www.careersintrades.ca/youth

Drive a Bus www.driveabus.ca

Skills Canada www.skillscanada.com

Colleges

Algonquin College
www.algonquincollege.com

Canadore College
www.canadorec.on.ca

Centennial College
www.centennialcollege.ca

Confederation College
www.confederationc.on.ca

Fanshawe College
www.fanshawec.ca

Fleming College
www.flemingc.on.ca

Loyalist College
www.loyalistc.on.ca

Mohawk College
www.mohawkcollege.ca

Niagara College
www.niagaracollege.ca

St. Clair College
www.stclaircollege.ca

Universities

Associations

Canadian Association of Equipment Distributors
www.caed.org

Council of Ontario Construction Associations
www.coca.on.ca

Ontario Construction Secretariat
www.iciconstruction.com





Heavy Equipment Operator

NOC 7421

What responsibilities will I have?

- Operate backhoes, bulldozers, loaders and graders to excavate, move, load and grade earth, rock, gravel or other material during construction and related activities
- Operate bulldozers or other heavy equipment to clear brush and stumps prior to logging activities and to build roads
- Operate heavy equipment with pile driver head to drive piling into earth to provide support for buildings of other structures
- Operate dredging equipment to deepen waterways or reclaim earth fill
- Operate paving and surfacing equipment to lay, spread or compact concrete, asphalt and other surface materials during highway and road construction
- Operate power shovels to excavate rock, ore or other materials from open-pit mines, strip mines, quarries or construction pits
- Operate heavy equipment to move, load and unload cargo
- Conduct pre-operational checks on equipment and clean, lubricate and refill equipment



What education and training is required?

Currently to become a Heavy Equipment Operator some secondary school education is required. In Ontario trade certification is voluntary, however, certification is strongly recommended. Certification tells employers and other workers that you are a skilled professional. To gain trade certification completion of a one to two year apprenticeship program or some high school, college or industry courses in heavy equipment operating combined with on-the-job training is required.

To pursue a career as a Heavy Equipment Operator...

- The following high school courses are recommended to prepare for a career in this field: **English, Mechanics and Physics**
- Post-secondary education offered at the college level related to this career include: Motive Power Techniques, Heavy Equipment Operator, Motive Power Fundamentals
- **Personal qualities:** willingness to continually learn, safety conscious
- **Applied skills:** teamwork, mechanical skills

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** heavy equipment dealers, establishments that own and operate heavy equipment in mining, manufacturing, transportation and construction, heavy equipment rental and service establishments
- **Typical hours of employment in Hamilton:** full-time
- **Average hourly wage rate in Hamilton:** \$23.60/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability?

Technological change continues to make heavy equipment operating less labour intensive. Advances in machinery technology will make machinery easier to operate but more complicated to maintain. The employment growth rate will likely be average; however, the funding of major construction projects such as public infrastructure should create job openings. The number of job seekers will likely match the number of job openings.

How do I prepare for this position?

Technological changes will lead to an increased use of computer skills and an increase in text reading and document use as maintenance and operation manuals are more frequently consulted. Also, improving your technical skills and developing interpersonal skills will help you find employment in this field.

Future Job Outlook in Hamilton

Current: **FAIR***

5 Years: **FAIR***

*Based on information available at OntarioJobFutures.ca

Local Employers

Ancaster Paving

www.ancasterpaving.com

Bartonair Fabrications

www.bartonairfab.com

Birmingham Construction Solutions

www.birmingham.com

BFI Canada Inc.

www.bficanada.com

Bitumar Inc.

www.bitumar.com

Cardi Construction

www.cardiconstruction.com

Arcelor-Mittal Dofasco

www.dofasco.ca

Dominion Auto Wreckers

www.dominionauto.com

F and S Excavating Ltd.

www.fsexcavating.com

Hamilton Builder's Supply Inc.

www.hamiltonbuilders.com

Hamilton International Airport

www.flyhi.ca

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship

www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Job Futures

www.jobfutures.ca

Ontario Job Futures

www.ontariojobfutures.ca

Local Labour Market Information

www.labourmarketinformation.ca

Careers in Construction

www.careersinconstruction.ca

Apprenticesearch.com

www.apprenticesearch.com

Drive a Bus

www.driveabus.ca

Colleges

Confederation College

www.confederationc.on.ca

Fanshawe College

www.fanshawec.ca

Fleming College

www.flemingc.on.ca

Mohawk College

www.mohawkcollege.ca

Universities

Associations

Canadian Association of Equipment Distributors

www.caed.org

Construction Safety Association of Ontario

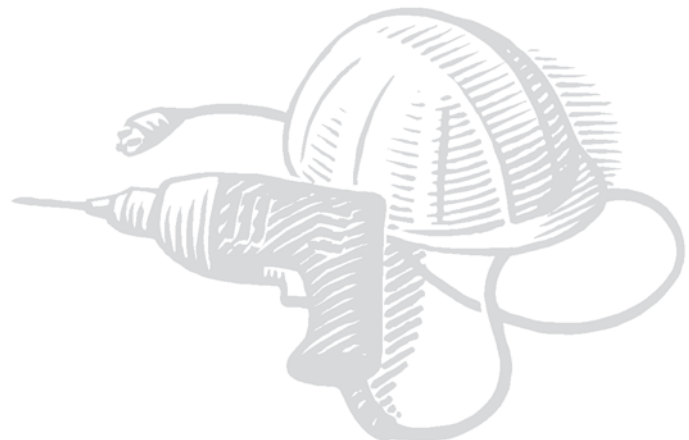
www.csao.org.ca

Construction Sector Council

www.csc-ca.org

International Union of Operating Engineers, Local 772

www.iuoe772.org





Home Builder

NOC 0712

What responsibilities will I have?

- Plan, organize, direct, control and evaluate the activities of a residential home building or renovating company
- Prepare bids for home construction or renovation projects
- Consult with customers, architects and engineers regarding plans and specifications
- Select, employ and supervise trade subcontractors to do specialized work, such as plumbing, heating and electrical work
- Plan and prepare work schedules and co-ordinate the activities of subcontractors
- Inspect work performed by subcontractors to ensure quality and conformity with plans and specifications
- Prepare and maintain a directory of suppliers and trade subcontractors
- Develop and implement marketing and advertising strategies to promote company's products and services
- May perform carpentry or other trade work during home construction or renovation activities



What education and training is required?

Currently to become a Home Builder and start your own business, extensive experience in the home construction industry is needed. Gaining experience as a general supervisor or other supervisory/management positions in the construction industry will provide you with necessary experience. Although formal training or licensing is not required, completing courses in engineering, architecture or construction will help expand your knowledge in this field.

To pursue a career as a Home Builder...

- The following high school courses are recommended to prepare for a degree/diploma program: **English, Mathematics and Business**
- Post-secondary education offered at the university/college level related to this career include: Architecture, Architectural Studies, Civil Engineering, Architecture, Landscape and Design, Business Management, Building Construction Technician, Carpentry and Millwork, Construction Engineering Technician, General Construction Estimating, Renovation Techniques
- **Personal qualities:** effective communications skills, interpersonal skills, organizational skills, critical thinking, problem solving
- **Applied skills:** math skills, computer skills, management skills, leadership

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** residential building developers, construction companies, building construction firms, interior and finishing construction firms, exterior construction firms, self-employment
- **Typical hours of employment in Hamilton:** full-time
- **Average hourly wage rate:** \$28.94/hr*

*Based on information available at JobFutures.ca



FUTURE JOB MARKET

What about my employability? Employment in this field is expected to remain good over the next few years. Although the retirement will likely be average, the number of retiring workers will contribute to the number of job openings.

How do I prepare for this position? You will be competing with experienced construction workers from other occupations. You are more likely to succeed in the construction sector if you have knowledge of advances in building techniques/materials, "smart" buildings and new building standards. Along with a strong knowledge of the home building industry, enhancing your business management skills will also prove useful if you choose to enter this career.

Future Job Outlook in Hamilton

Current: **GOOD***

5 Years: **GOOD***

*Based on information available at JobFutures.ca

Local Employers

Alterra Group

www.alterra.com

Aspen Ridge Homes

www.aspenridgehomes.com

Desantis Developments

www.desantis.com

Homes by DeSantis

www.homesbydesantis.com

Jenstar Construction

www.jenstarhomes.com

Landmart Building Corp.

www.landmarthomes.com

Losani Homes

www.losanihomes.com

Marz Homes

www.marzhomes.com

Multi-Area Developments

www.multi-area.com

New Horizon Homes

www.newhorizonhome.com

Passport Homes

www.passporthomes.ca

Scarlet Homes Ltd.

www.scarletthomes.com

Starwood Homes

www.starwoodhomes.com

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship

www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Job Futures www.jobfutures.ca

Career MATTERS www.ilc.org

Builder Magazine www.builderonline.com

Home Builder Magazine

www.homebuildercanada.com

Residential Construction

www.homebuilderscareers.com

Colleges

Algonquin College

www.algonquincollege.com

Durham College

www.durhamcollege.ca

Fanshawe College

www.fanshawec.ca

George Brown College

www.georgebrown.ca

Humber College

www.humber.ca

Mohawk College

www.mohawkcollege.ca

Niagara College

www.niagaracollege.ca

Sault College

www.saultc.on.ca

St. Lawrence College

www.sl.on.ca

Universities

Carleton University www.carleton.ca

McMaster University www.mcmaster.ca

Queen's University www.queensu.ca

Ryerson University www.ryerson.ca

University of Ottawa www.uottawa.ca

University of Toronto www.utoronto.ca

University of Windsor www.uwindsor.ca

Associations

Hamilton-Halton Home Builders' Association

www.hhhba.ca

Ontario Home Builders' Association

www.homesontario.com

Ontario General Contractors Association

www.ogca.ca

Ontario Construction Secretariat

www.iciconstruction.com

Canadian Construction Association

www.cca-acc.com

Canadian Home Builders' Association

www.chba.ca



Heat and Frost Insulator

NOC 7293

What responsibilities will I have?

- Read and interpret drawings and specifications to determine insulation requirements and select type of insulation required
- Measure and cut insulation material to required dimensions using hand and power tools
- Apply and secure insulation using spraying, blowing, pasting, strapping, taping and other application and installation methods
- Fit insulation around obstructions and between studs and joists
- Install vapour barriers
- Apply waterproofing cement over insulating materials to finish surfaces
- Remove asbestos insulation from buildings when required



What education and training is required?

Currently to become a Heat and Frost Insulator the minimum requirement is the completion of secondary school. In Ontario, trade certification is not mandatory but is strongly recommended. Certification tells employers and other workers that you are a skilled professional. To gain trade certification, completion of a three to four year apprenticeship program or a combination of four years of work experience in the trade and some high school, college and industry courses in insulating are required.

To pursue a career as a Heat and Frost Insulator...

- The following high school courses are recommended to prepare for a career in this field: **English, Mathematics and Science**
- Post-secondary education offered at the college level related to this career include: Building Construction Technician, Heating Ventilation and Air Conditioning Techniques, Building Renovation Technician, Construction Techniques
- **Personal qualities:** effective communication skills, problem solving, willingness to continually learn, safety conscious, good physical condition, ability to work independently
- **Applied skills:** ability to read diagrams, schematics, etc., teamwork

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** companies, insulation contractors, self-employment
- **Typical hours of employment in Hamilton:** full-time; work both in and outdoors; exposed to potentially hazardous working materials
- **Average hourly wage rate in Hamilton:** \$26/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability? Due to Canada's aging workforce and construction booms in the institutional and industrial sectors, employment opportunities for this occupation are only increasing.

How do I prepare for this position? To start a career in this field, insulation contractors prefer high school graduates who are in good physical condition and licensed to drive. Also, high school courses specializing in reading blueprints and woodworking will be helpful in finding employment.

Future Job Outlook in Hamilton

Current: FAIR*

5 Years: FAIR*

*Based on information available at CareersInConstruction.ca

Local Employers

McGowan Insulations Ltd.

www.mcgowan.on.ca

Great Northern Insulation

www.gni.ca

Pro Insul Limited

www.proinsul.com

Energysystem Insulation Limited

Ken Mason Insulation

Scotco Insulation

Oblender Insulation Inc.

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship

www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Heat and Frost Insulators

www.heatandfrostinsulators.ca

Careers in Construction

www.careersinconstruction.ca

Interprovincial Standards

www.red-seal.ca

Made With the Trades

www.madewiththetrades.com

Apprenticesearch.com

www.apprenticesearch.com

Build a Future

www.buildafuture.ca/insulator.html

Colleges

Algonquin College

www.algonquincollege.com

Durham College

www.durhamcollege.ca

George Brown College

www.georgebrown.ca

Niagara College

www.niagaracollege.ca

Universities

Associations

International Association of Heat and Frost Insulators and Allied Workers

www.insulators.org

Thermal Insulation Association of Canada

www.tiac.ca

Ontario Home Builder's Association

www.homesontario.com

Canadian Home Builder's Association

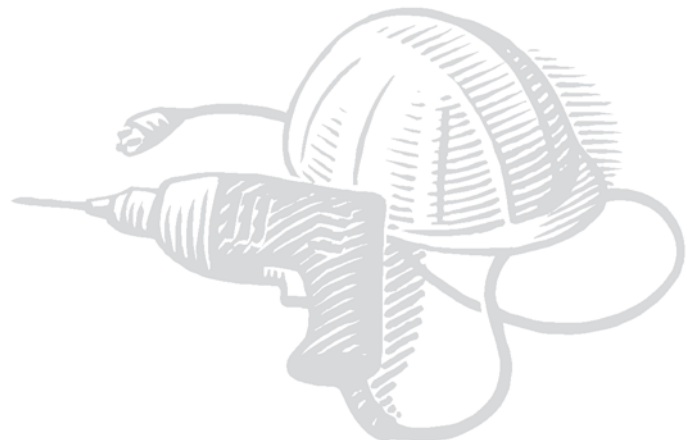
www.chba.ca

Construction Sector Council

www.csc-ca.org

International Association of Heat and Frost Insulators and Asbestos Workers Local 95

1-905-944-0110





Ironworker

NOC 7264

What responsibilities will I have?

- Read blueprints and other instructions to help put up structures such as buildings and bridges
- Hoist and install structural steel, precast concrete, metal reinforcement materials and other metals used in construction
- Put up and install scaffolding and lift equipment and rigging (ropes, cables, etc.)
- Align, weld or bolt steel units in place
- Install ornamental and other structural metalwork such as metal stairways, railing and power doors



What education and training is required?

Currently to become an Ironworker completion of secondary school is usually required. Also, to obtain trade certification completion of a two to three year apprenticeship program or three years of work experience in the trade and some high school, college or industry courses in ironworking is required. In Ontario, trade certification is not mandatory but strongly recommended. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as an Ironworker...

- The following high school courses are recommended to prepare for a career in this field: **English, Mathematics, and Physics**
- Post-secondary education offered at the college level related to this career include: Welding Techniques, Welding Engineering Technology, Sheet Metal Worker
- **Personal qualities:** effective communication skills, good physical condition, problem solving, safety conscious
- **Applied skills:** ability to read diagrams, mechanical skills, math skills

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** heavy construction firms, metal fabricating businesses, commercial construction builders, construction ironwork contractors
- **Typical hours of employment in Hamilton:** full-time; often outdoors and at great heights; some travel
- **Average hourly wage rate in Hamilton:** \$29.70/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability? The construction industry in the Hamilton area has been steadily growing over the past few years, and according to Canada Housing and Mortgage, it is expected to continue this growth pace for years to come. The Ironworkers in the Hamilton area are slightly older than the Ontario average, which reflects Hamilton's strong need to replace retiring workers for this occupation. Although employment is still somewhat seasonal, it is not as seasonal as it once was. Many projects are now busy year round with few downtimes during the winter months.

How do I prepare for this position? You are more likely to succeed if you develop your interpersonal and technical skills.

Future Job Outlook in Hamilton

Current: **GOOD***

5 Years: **GOOD***

*Based on information available at LabourMarketInformation.ca

Local Employers

Birmingham Construction Solutions
www.birminghamhammer.com

Beston Concrete Forms

Clear Span Inc.
www.thefarleygroup.com

Hulleman Engineering

Norstar Windows and Dorrs Ltd.
www.norstarwindows.com

Sona Construction Ltd.

Walters Inc.
www.waltersinc.com

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship
www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Interprovincial Standards
www.red-seal.ca

Careers in Construction
www.careersinconstruction.ca

Career MATTERS
www.ilc.org

Apprenticesearch.com
www.apprenticesearch.com

Made With the Trades
www.madewiththetrades.com

Colleges

Algonquin College
www.algonquincollege.com

Canadore College
www.canadorec.on.ca

Conestoga College
www.conestogac.on.ca

Confederation College
www.confederationc.on.ca

Durham College
www.durhamcollege.ca

Fanshawe College
www.fanshawec.ca

Fleming College
www.flemingc.on.ca

Lambton College
www.lambton.on.ca

Mohawk College
www.mohawkcollege.ca

Universities

Associations

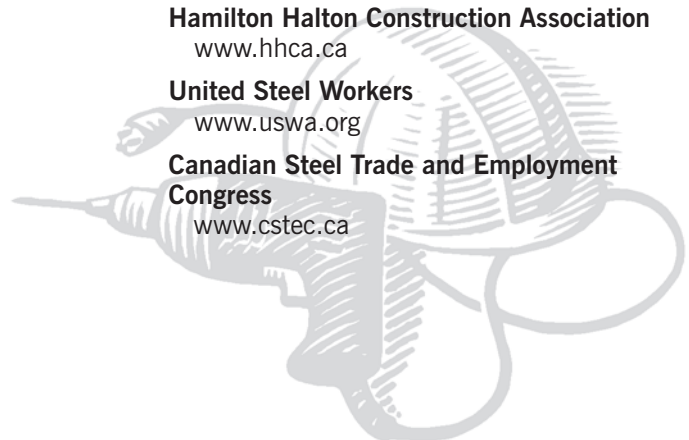
Ironworkers International
www.ironworkers.org

Metal Building Contractors
www.mbcea.ca

Hamilton Halton Construction Association
www.hhca.ca

United Steel Workers
www.uswa.org

Canadian Steel Trade and Employment Congress
www.cstec.ca





Millwright

NOC 7311

What responsibilities will I have?

- Read blueprints, diagrams and schematic drawings to determine work procedures
- Install, align, dismantle and move stationary industrial machinery and mechanical equipment, such as pumps, fans, tanks, conveyors, furnaces and generators according to layout plans using hand and power tools
- Operate hoisting and other lifting devices to position machinery and parts during installation, set-up or repair
- Inspect and examine machinery and equipment to detect and investigate irregularities and malfunctions
- Plan and schedule installations and preventative repairs and maintenance of a wide range of equipment and machinery, which includes material handling, power transmission, compressors, pumps and pipes, robotics, pneumatics, hydraulics and other systems and equipment
- Assemble machinery and equipment prior to installation using hand and power tools and welding equipment



What education and training is required?

Currently to become a Millwright completion of secondary school is usually required. To qualify for trade certification completion of a three to four year apprenticeship program or a combination of over five years of work experience in the trade and some high school, college or industry courses in industrial machinery repair is also required. In Ontario, trade certification is not mandatory but is strongly recommended in this field. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as a Millwright...

- The following high school courses are recommended to prepare for a career in this field: **English, Mathematics, Science and Technology and co-op** is strongly recommended
- Post-secondary education offered at the college level related to this career include: Industrial Mechanic (Millwright), Mechanical Techniques – Industrial Maintenance
- **Personal qualities:** effective communication skills, problem solving, safety conscious
- **Applied skills:** math skills, mechanical skills, ability to work independently

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** mechanical construction firms, primary steel producers, machinery and equipment manufacturers, mining companies
- **Typical hours of employment in Hamilton:** full-time; shift work; some overtime
- **Average hourly wage rate in Hamilton:** \$26.30/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability?

Employment for this occupation is expected to grow about as fast as the average over the next few years. While job growth will create new positions, many more job openings will stem from the need to replace retiring workers. Millwrights and industrial mechanics are employed in a variety of industries where they maintain and repair existing machinery, dismantle old machinery, and install new equipment.

How do I prepare for this position?

The development of new technologies may affect the work of Millwrights; therefore, staying up to date with new techniques and technologies and improving computer literacy will help prepare you for this occupation.

Future Job Outlook in Hamilton

Current: **GOOD***

5 Years: **GOOD***

*Based on information available at LabourMarketInformation.ca

Local Employers

Air Liquide Canada

www.airliquide.com

Alphagary Canada Ltd.

www.alphagary.com

Altruck International Truck Centre

www.idealease.com

Barton Air Compressors

www.bartonair.ca

Bartonair Fabrications

www.bartonairfab.com

B.S.B. Manufacturing Ltd.

www.bsbmfg.com

Cadbury Adams Canada Inc.

www.cadburyjobsincanada.com

Campli Metals Inc.

www.camplimetals.com

Canadian Liquids Processors Limited

www.canadianliquids.com

ArcelorMittal Dofasco

www.dofasco.ca

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship

www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Local Labour Market Information

www.labourmarketinformation.ca

Careers in Construction

www.careersinconstruction.ca

Apprenticesearch.com

www.apprenticesearch.com

Tradeability www.tradeability.ca

Monster.ca

www.trades.monster.ca/8119_en-CA_p1.asp

Made With the Trades

www.madewiththetrades.com

Industrial Maintenance and Plant Operation Magazine

www.ipmomag.org

Colleges

Conestoga College

www.conestogac.on.ca

Durham College

www.durhamcollege.ca

Fanshawe College

www.fanshawec.ca

Mohawk College

www.mohawkcollege.ca

Niagara College

www.niagaracollege.ca

St. Lawrence College

www.sl.on.ca

Universities

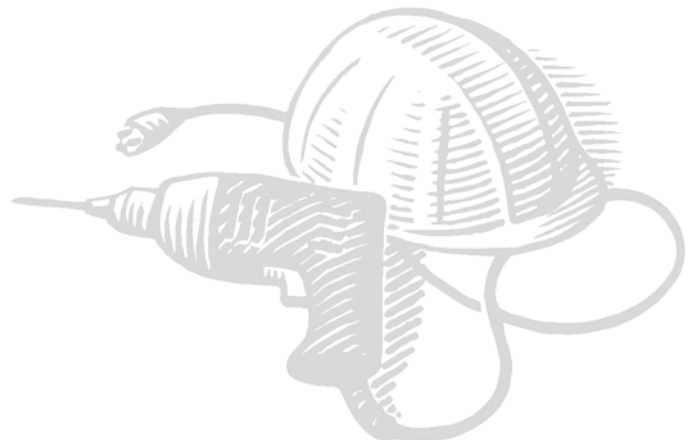
Associations

Ontario Construction Secretariat:

www.iciconstruction.com

Association of Industrial Mechanics

www.niagara.com





Painter & Decorator

NOC 7294

What responsibilities will I have?

- Read specifications to determine quantities of materials required
- Prepare and clean surfaces using methods such as scraping, sanding, sandblasting, hydro-blasting and steaming, remove old wallpaper and repair cracks, holes and other damage
- Mix and tint paints to obtain desired colour and texture
- Apply paint or other materials to the surface, and clean up the tools and work area upon completion
- Advise customers and provide cost estimates



What education and training is required?

Currently to become a Painter and/or Decorator completion of secondary school is usually required. In order to be eligible for trade certification completion of a 3-4 year apprenticeship program or over three years work experience in this trade may be required. In Ontario trade certification is not mandatory but is highly recommended. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as a Painter and/or Decorator...

- The following high school courses are recommended to prepare for a diploma program: **English, Mathematics, Business and Industrial Arts**
- Post-secondary education offered at the college level related to this career include: Interior Decorating, Drawing and Painting Certificate
- **Personal qualities:** effective communication skills, good physical condition, problem solving and time management
- **Applied skills:** math skills, teamwork and ability to work independently

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** building maintenance contractors, construction companies, decorating contractors, decorators, painting contractors, self-employment
- **Typical hours of employment in Hamilton:** full-time; some overtime
- **Average salary in Hamilton:** start - \$41,579*; with formal training and some experience - \$52,844*

*Based on information available at Monster.ca



FUTURE JOB MARKET

What about my employability? Entering this profession you can expect to see the number of job seekers match the number of job openings.

How do I prepare for this position? Becoming a Painter and/or Decorator requires you to have excellent time management skills as you will be required to meet strict deadlines in order to complete projects. Also, showing employers that you can work both independently as well as part of a team will improve your employability.

Future Job Outlook in Hamilton

Current: FAIR*

5 Years: FAIR*

*Based on information available at JobFutures.ca

Local Employers

Moving On Designs

www.movingondesigns.ca

All-Chroma Painting and Flooring

www.all-chroma.com

Custom Decorating Services

www.customdecoratingservices.com

Sherwood Painting and Renovations

www.sherwoodpainting.ca

John Duffy Painting and Decorating

Colleges

Algonquin College

www.algonquincollege.com

Confederation College

www.confederationc.on.ca

Durham College

www.durhamcollege.ca

Fanshawe College

www.fanshawec.ca

Fleming College

www.flemingc.on.ca

Humber College

www.humber.ca

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship

www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Interprovincial Standards Red Seal Program

www.red-seal.ca

Job Futures

www.jobfutures.ca

Careers in Construction

www.careersinconstruction.ca

Apprenticesearch.com

www.apprenticesearch.com

Career MATTERS

www.ilc.org

Made With the Trades

www.madewiththetrades.ca

Monster.ca – Salary Information

www.salarywizard.monster.ca

Ontario Industrial and Finishing Skills Centre

www.oifsc.com

Universities

Associations

Ontario Painting Contractors' Association

www.ontpca.org

Canadian Decorators' Association

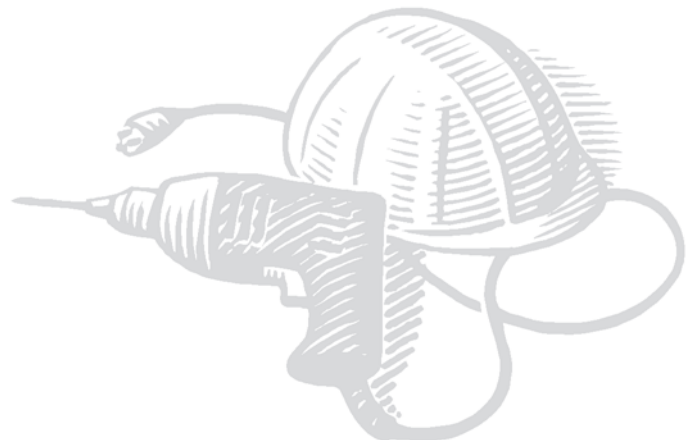
www.cdeca.com

Canadian Certified Interior Decorator's Association

www.ccida.ca

Master Painters and Decorators Associations

www.paintinfo.com/assoc/mpda/index.htm





Plumber

NOC 7251

What responsibilities will I have?

- Read and interpret blueprints, drawings and specifications to determine layout of plumbing system, water supply network and waste and drainage systems
- Install, repair and maintain domestic, commercial or industrial plumbing systems
- Mark positions for pipe connections and fixtures in walls and floors
- Cut openings in walls and floors to accommodate pipes and pipe fittings
- Measure, cut, bend and install pipes using hand and power tools
- Join pipes using clamps, screws, bolts or cement
- Weld pipes and test pipes for leaks
- Prepare cost estimates



What education and training is required?

Currently to become a Plumber completion of a four to five year apprenticeship program is required. In Ontario, it is mandatory to obtain trade certification. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as a Plumber...

- The following high school courses are recommended to prepare for a career in this field: **English, Mathematics, and Physic**
- **Personal qualities:** safety conscious, problem solving
- **Applied skills:** math skills, ability to read diagrams, schematics, etc., mechanical skills

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** plumbing contractors, construction firms, maintenance departments of factories, self-employment
- **Typical hours of employment in Hamilton:** full-time; some evenings and weekends
- **Average hourly wage rate in Hamilton:** \$23.30/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability? There is a strong demand for licensed Plumbers as employers have reported some difficulty in finding qualified workers in a reasonable time period. Furthermore, the demand for licensed Plumbers will also come from the need to replace retiring workers.

How do I prepare for this position? Licensed Plumbers who also hold a gas fitters certificate are in demand by companies that combine plumbing, heating and cooling services. Also, gaining experience with computers will increase your employability.

Future Job Outlook in Hamilton

Current: **GOOD***

5 Years: **GOOD***

*Based on information available at LabourMarketInformation.ca

Local Employers

Bath Fitter

www.bathfitter.com

Hamilton Health Sciences

www.hamiltonhealthsciences.ca

L.J. Barton Mechanical Inc.

www.ljbarton.com

Roto Rooter

Sona Construction Limited

Taylor's Plumbing

www.taylorsplumbing.com

United National Contractors Ltd.

www.unitednational.ca

Vaudrelac Developments

Related Websites

Ministry of Training, Colleges, and Universities – Apprenticeship

www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Interprovincial Standards Red Seal Program

www.red-seal.ca

Local Labour Market Information

www.labourmarketinformation.ca

Careers in Construction

www.careersinconstruction.ca

Apprenticesearch.com

www.apprenticesearch.com

Career MATTERS

www.ilc.org

Job Futures

www.jobfutures.ca

Made With the Trades

www.madewiththetrades.ca

Skills Canada

www.skillscanada.com

Colleges

Algonquin College

www.algonquincollege.com

Conestoga College

www.conestogac.on.ca

Durham College

www.durhamcollege.ca

Fanshawe College

www.fanshawec.ca

Universities

Associations

Ontario Pipe Trades Council

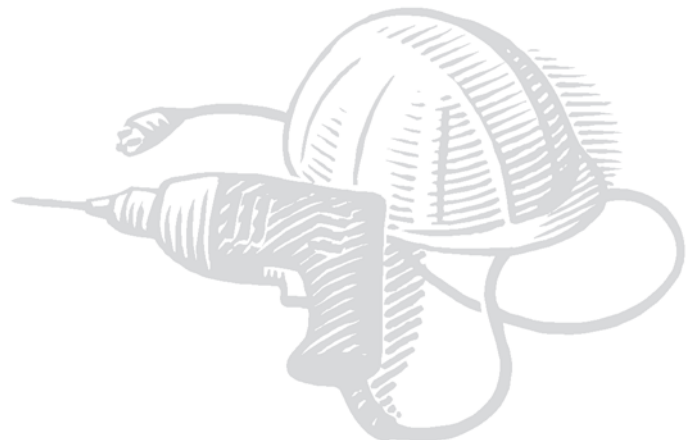
www.optc.org

Organized Plumbing & Mechanical Professionals of Ontario

www.getitdoneright.ca

United Association Local 46 – Plumbers & Steamfitters Union

www.ualocal46.org





Refrigeration and Air Conditioning Mechanic

NOC 7313

What responsibilities will I have?

- Read and interpret blueprints, drawings or other specifications
- Measure and lay out reference points for installation
- Assemble and install refrigeration or air conditioning components such as motors, controls, gauges, valves and compressors using hand and power tools
- Measure and cut piping, and connect piping using welding and brazing equipment
- Install, troubleshoot and overhaul entire heating, ventilation, air handling, refrigeration and air conditioning systems
- Start up system and test for leaks using testing devices
- Recharge system with refrigerant, check and test regulators, calibrate system and perform routine maintenance or servicing
- Repair and replace parts and components for entire refrigeration, air conditioning, ventilation or heat pump systems
- May install, maintain and repair equipment in refrigerated trucks used to transport food or medical supplies
- May prepare work estimates for clients



What education and training is required?

Currently to become a Refrigeration and Air Conditioning Mechanic completion of secondary school is usually required. In Ontario, trade certification is mandatory. To gain trade certification completion of a three to five year apprenticeship program or a combination of over five years of work experience in the trade and some high school, college or industry courses in refrigeration and air conditioning repair is required. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as a Refrigeration and Air Conditioning Mechanic...

- The following high school courses are recommended to prepare for a diploma program: **English, Mathematics, Physics and Mechanics**
- Post-secondary education offered at the college level related to this career include: Heating, Refrigeration and Air Conditioning Technician, HVAC Techniques, Air Conditioning and Refrigeration Engineering Technician, Building Systems Engineering Technician
- **Personal qualities:** safety conscious, interpersonal skills
- **Applied skills:** ability to read diagrams, schematics, etc., mechanical skills, teamwork, math skills, ability to work independently

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** plumbing, heating and air conditioning construction firms, appliance, television, radio and stereo stores, mechanical construction firms, commercial refrigeration and air conditioner manufacturers, self-employment
- **Typical hours of employment in Hamilton:** full-time; possible overtime during peak periods
- **Average hourly wage rate in Hamilton:** \$22.85/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability?

Growth in the population and economy will increase the demand for this occupational group as the need to install new, more efficient air conditioning and refrigeration systems will increase as well. Much of the work for this field will be in maintenance and repair which usually remains relatively stable, even during economic slowdowns.

How do I prepare for this position? As in most other trades, there is an increasing need for computer literacy and the ability to operate computer-controlled equipment. Becoming familiar with these systems will improve employability.

Future Job Outlook in Hamilton

Current: FAIR*

5 Years: FAIR*

*Based on information available at OntarioJobFutures.ca

Local Employers

A-Plus Air Systems
www.aplusair.ca

Aire One
www.aireone.com

Arvin Air Systems Limited
www.arvinair.com

Atlas Air Climate Care
www.atlasair.ca

Carrier Canada Limited
www.carrier.com

Ceda-Reactor Ltd.
www.cedagroup.com

JTH Best Engineering
www.jthbestengineering.com

Sears Authorized Indoor Clean Air Services
www.excellcleanair.com

Ancaster Mechanical Ltd.

Ashland Heating and Air Conditioning Inc.

B & G Heating AC & Ventilation

Langton Mechanical Systems and Services

Tafcon Heating and Air Conditioning

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship
www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Interprovincial Standards www.red-seal.ca

Job Futures www.jobfutures.ca

Ontario Job Futures www.ontariojobfutures.ca

Local Employers
www.labourmarketinformation.ca

Career MATTERS www.ilc.org

Apprenticesearch.com
www.apprenticesearch.com

HVAC Job Search www.hvacjobs.ca

Skills Canada www.skillsCanada.com

Colleges

Algonquin College
www.algonquincollege.com

Durham College
www.durhamcollege.ca

Fanshawe College
www.fanshawec.ca

George Brown College
www.georgebrown.ca

Humber College
www.humber.ca

Mohawk College
www.mohawkcollege.ca

Seneca College
www.senecac.on.ca

St. Clair College
www.stclaircollege.ca

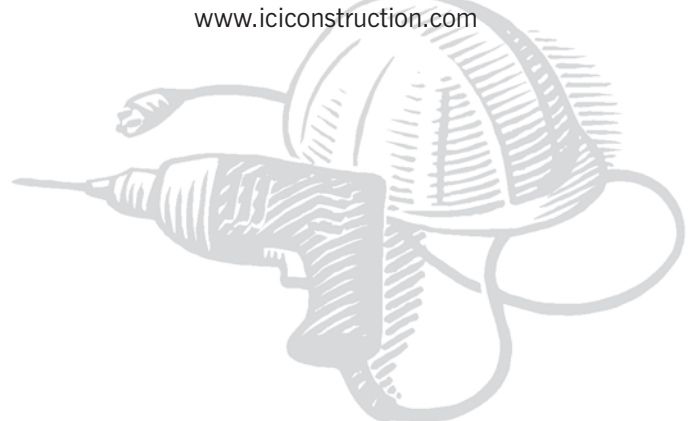
Universities

Associations

American Society of Heating, Refrigeration and Air Conditioning Engineers
www.ashrae.org

Heating, Refrigeration and Air Conditioning Institute of Canada
www.hrai.ca

Ontario Construction Secretariat
www.iciconstruction.com





Roofer

NOC 7291

What responsibilities will I have?

- Install, repair or replace roofing systems using materials such as asphalt and gravel
- Install, repair or replace shingles, shakes and other roofing tiles on sloped roofs of buildings
- Apply waterproof coatings to concrete surfaces below or above ground level
- Install and repair metal roofs using hand and power tools
- Install scaffolding to provide safe access to roofs
- Estimate required materials and costs



What education and training is required?

Currently to become a Roofer completion of secondary school is usually required. In addition, a 2-3 year apprenticeship program or over three years of work experience in the trade is usually required to be eligible for trade certification. In Ontario, trade certification is voluntary but highly recommended. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as a Roofer...

- The following high school courses are recommended to prepare for a career in this field: **English, Mathematics, and co-op** is strongly recommended
- Post-secondary education offered at the college level related to this career include: Building Construction Technician, Renovation Techniques, Construction Techniques
- **Personal qualities:** interpersonal skills, safety conscious, good physical condition
- **Applied skills:** math skills, teamwork, technical skills

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** local roofing companies, local contractors, self-employment
- **Typical hours of employment in Hamilton:** full-time; some overtime; working outdoors for prolonged periods of time; able to work at heights
- **Average hourly wage rate in Hamilton:** \$21*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability? The employment growth rate will likely be below average and the number of persons leaving for retirement will be insufficient to counterbalance weak job creation. The number of job seekers will likely match the number of job openings in this field.

How do I prepare for this position? You are more likely to succeed if you continue to develop your technical and interpersonal skills.

Future Job Outlook in Hamilton

Current: FAIR*

5 Years: FAIR*

*Based on information available at JobFutures.ca

Local Employers

Brave Top Roofing

www.bravetoproofing.com

Capela's Roofing

www.capelaroofting.com

Roofmart Ontario Ltd.

www.roofmart.ca

A M Roofing Systems Inc.

Atlantic Roofers Ontario Ltd.

B & G Roofing & Sheet Metal

Bertozzi Roofing Inc.

JRP Roofing

Larry's Roofing & Siding Inc.

Mack Roof Tiles Ltd.

Roque Ontario Ltd.

Sousa Roofing

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship

www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Interprovincial Standards

www.red-seal.ca

Local Labour Market Information

www.labourmarketinformation.ca

Careers in Construction

www.careersinconstruction.ca

Apprenticesearch.com

www.apprenticesearch.com

Made With the Trades

www.madewiththetrades.com

Job Futures

www.jobfutures.ca

Colleges

Algonquin College

www.algonquincollege.com

Mohawk College

www.mohawkcollege.ca

Niagara College

www.niagaracollege.ca

Universities

Associations

Ontario Industrial Roofing Contractors Association

www.ontarioroofing.com

Canadian Roofing Contractors Association

www.roofingcanada.com

Construction Safety Association of Ontario

www.csao.org

Construction Sector Council

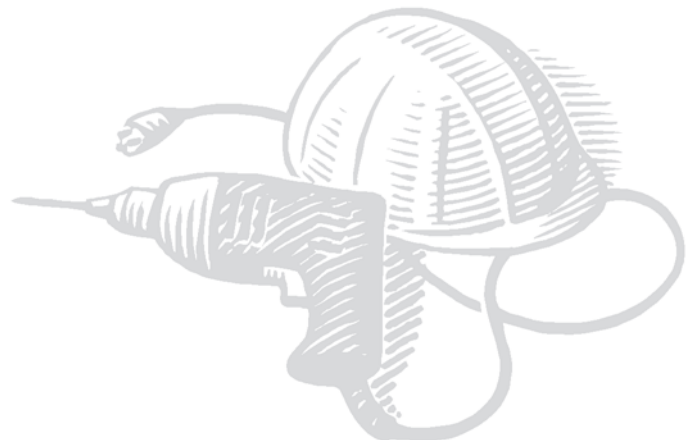
www.csc-ca.org

Ontario Construction Secretariat

www.iciconstruction.com

Ontario Home Builders' Association

www.homeontario.com





Sheet Metal Worker

NOC 7261

What responsibilities will I have?

- Read engineering and architectural drawings, sketches and work specifications to be performed, and lay out, measure and mark sheet metal according to drawings or templates
- Operate various types of equipment – laser or plasma arc cutting machines, computerized equipment, hand and power tools and light metalworking machines – to cut, bend, drill, shape or form the metal in other ways
- Install and use rigging and hoisting equipment
- Fit and join sheet metal parts using riveting, welding, and similar equipment to fabricate products
- Install sheet metal products according to specifications and building codes
- Grind and buff seams, joints and rough surfaces
- Inspect product quality and installation to ensure conformance to specifications



What education and training is required?

Currently to become a Sheet Metal Worker completion of secondary school is usually required. In Ontario, trade certification is mandatory. To gain trade certification completion of a three to five year apprenticeship program or a combination of four years of work experience and some high school, college or industry courses in sheet metal working is usually required. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as a Sheet Metal Worker...

- The following high school courses are recommended to prepare for a diploma program: **English, Mathematics, Physics and Computers**
- Post-secondary education offered at the college level related to this career include: Precision Metal Fabricator, Sheet Metal Apprentice, Welding and Fabrication Technician
- **Personal qualities:** effective communication skills, problem solving, good physical condition
- **Applied skills:** ability to read diagrams, schematics, etc., technical skills, mechanical skills, math skills, ability to work independently

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** plumbing, heating and air conditioning construction firms, primary steel producers, metal producers, exterior construction firms, stamping press and coated metal products companies, construction trades, aircraft and parts manufacturer, building construction firms
- **Typical hours of employment in Hamilton:** full-time
- **Average hourly wage rate in Hamilton:** \$24.75/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability? The demand for sheet metal installations will increase as more industrial, commercial, and residential structures are built. The need to install energy-efficient air-conditioning, heating, and ventilation systems in old buildings should boost employment.

How do I prepare for this position? You will likely be competing with recent graduates, thus developing your technical and interpersonal skills along with apprenticeship training will increase employment opportunities.

Future Job Outlook in Hamilton

Current: FAIR*

5 Years: FAIR*

*Based on information available at JobFutures.ca

Local Employers

Aggressive Metals Inc.
www.aggressivemetals.com

Arvin Air Systems Ltd.
www.arvinair.com

Edson Packaging Machinery Ltd.
www.edson.com

Flamboro Technical Services
www.ftsstainless.com

JTH Best Engineering Inc.
www.jthbestengineering.com

Q-Air Environmental Controls
www.qair.com

Y & M Manufacturing Inc.
www.ymmanufacturing.com

Related Websites

Ministry of Training, College and Universities – Apprenticeship
www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Interprovincial Standards
www.red-seal.ca

Job Futures
www.jobfutures.ca

Ontario Job Futures
www.ontariojobfutures.ca

Local Employers
www.labourmarketinformation.ca

Career MATTERS
www.ilc.org

Careers in Construction
www.careersinconstruction.ca

Apprenticesearch.com
www.apprenticesearch.com

Made With the Trades
www.madewiththetrades.com

Skills Canada
www.skillscanada.com

Colleges

Algonquin College
www.algonquincollege.com

Cambrian College
www.cambriancollege.ca

Durham College
www.durhamcollege.ca

Mohawk College
www.mohawkcollege.ca

Universities

Associations

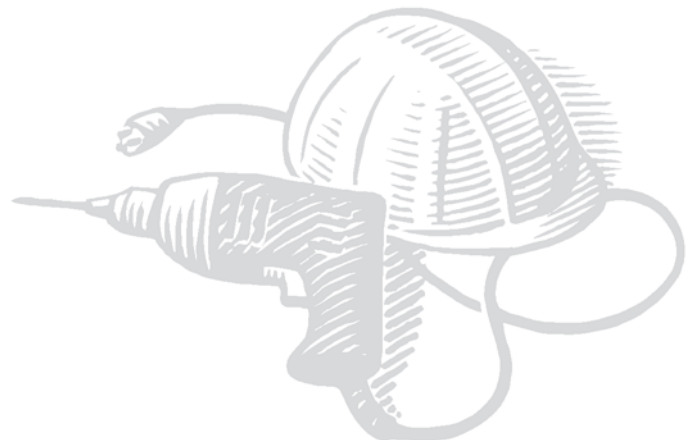
Sheet Metal and Air Conditioning Contractors' National Association
www.smacna.org

Sheet Metal Workers International Association
www.smwia.org

The Toronto Sheet Metal Contractors Association
www.tsmca.org

Ontario Construction Secretariat
www.iciconstruction.com

Sheet Metal Works Local 537 (Hamilton)
1-905-528-8737





Sprinkler and Fire Protection Installer

NOC 7252

What responsibilities will I have?

- Select, measure, cut and install piping
- Connect piping systems to water mains, supply tanks, pumps and control equipment
- Install sprinkler heads and alarm systems
- Join pipes using soldering and welding equipment, and connect the piping system to water mains, supply tanks, pumps and compressors
- Test systems for leaks using air or liquid pressure equipment
- Service and repair sprinkler systems
- Prepare cost estimates for clients



What education and training is required?

Currently to become a Sprinkler and Fire Protection Installer completion of secondary school is usually required. In Ontario trade certification is voluntary, however, certification is strongly recommended.

Certification tells employers and other workers that you are a skilled professional. To gain trade certification, completion of a four year apprenticeship program or over five years of work experience and some high school, college, or industry courses is required. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as a Sprinkler and Fire Protection Installer...

- The following high school courses are recommended to prepare for a career in this field: **English, Mathematics, and Science**
- **Personal qualities:** effective communication skills, problem solving, safety conscious, good physical condition
- **Applied skills:** ability to read diagrams, schematics, etc., math skills, technical skills, teamwork

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** residential building developers, heating and air conditioning construction firms, mechanical construction firms, plumbing contractors
- **Typical hours of employment in Hamilton:** full-time; overtime during peak periods
- **Average hourly wage rate in Hamilton:** \$28.40/hr*; union - \$32.77/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability? Employment in this occupation is expected to remain steady over the next few years as a large number of workers are expected to retire. In fact, nearly half of the current workforce in this trade is expected to retire within ten years. In addition, employment in the pipe trades are less seasonal and cyclical than most other construction trades.

How do I prepare for this position? As a Sprinkler and Fire Protection Installer computer literacy is essential. Staying up to date with current systems and fire codes will be vital to your success in this field.

Future Job Outlook in Hamilton

Current: **GOOD***

5 Years: **GOOD***

*Based on information available at LabourMarketInformation.ca

Local Employers

8 Days a Week Lawn Sprinkler Systems

www.8daysaweek.net

Hamilton Specialty Bar (2007) Inc.

www.hsbsteel.com

Heddle Marine Service Inc.

www.heddlemarine.com

Nutech Fire Protection Co. Ltd.

www.nutechfireprotection.ca

Rainbow Sprinklers and Irrigation

www.rainbowsprinklers.com

Raintree Irrigation and Outdoor Systems

www.raintree.on.ca

Select Sprinklers

www.selectsprinklers.com

Tube-Mac Industries Inc.

www.tube-mac.com

Vipond Fire Protection

www.vipond.ca

Colleges

Universities

Associations

**United Association of Plumbers,
Steamfitters and Pipe Welders**

www.ua.org

Ontario Construction Secretariat

www.iciconstruction.com

Related Websites

Ministry of Training, Colleges and Universities

[www.edu.gov.on.ca/eng/training/
apprenticeship/appren.html](http://www.edu.gov.on.ca/eng/training/apprenticeship/appren.html)

Interprovincial Standards

www.red-seal.ca

Career MATTERS

www.ilc.org

Local Labour Market Information

www.labourmarketinformation.ca

Ontario Job Futures

www.ontariojobfutures.ca

Apprenticesearch.com

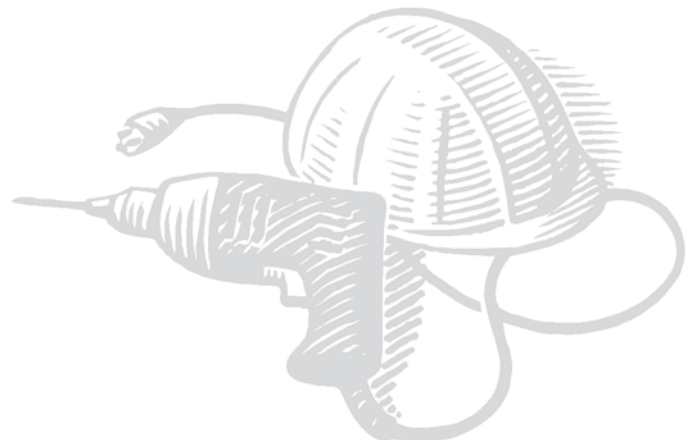
www.apprenticesearch.com

Tradeability.ca

www.tradeability.ca

Made With the Trades

www.madewiththetrades.com





Steamfitter/Pipefitter

NOC 7252

What responsibilities will I have?

- Read and interpret drawings and specifications to determine layout requirements
- Cut openings for pipe in walls, floors and ceilings using hand or power tools or machines
- Measure, cut, thread and bend pipe to required shape using hand and power tools
- Weld, braze, cement, solder and thread joints to join pipes and fabricate sections of piping system
- Install supports, valves piping and control systems
- Test system for leaks using testing equipment
- Clean and maintain pipe units and fittings
- Remove and replace worn components
- Prepare cost estimates for clients



What education and training is required?

Currently to become a Steamfitter/Pipefitter completion of secondary school is usually required. In Ontario, certification is mandatory in order to work in this field. To gain trade certification completion of a four to five year apprenticeship program or a combination of work experience and some high school, college or industry related courses is usually required. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as a Steamfitter/Pipefitter...

- The following high school courses are recommended to prepare for a career in this field: **English, Mathematics and Physics**
- **Personal qualities:** effective communication skills, problem solving, good physical condition
- **Applied skills:** math skills, mechanical skills

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** motor vehicle manufacturers, residential building developers, primary steel producers, electric power companies, plumbing, heating and air conditioning construction firms, mechanical construction firms, metal fabricating companies
- **Typical hours of employment in Hamilton:** full-time; some overtime
- **Average hourly wage rate in Hamilton:** \$28.40/hr*; union - \$32.77/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability? It is expected that this occupation will experience a large number of retiring workers, creating several openings for new entrants. Also, pipe trades are less seasonal and cyclical than other construction trades which translates into more stable hours of work.

How do I prepare for this position? As a Steamfitter/Pipefitter developing your technical and interpersonal skills will increase your employability.

Future Job Outlook in Hamilton

Current: **GOOD***

5 Years: **GOOD***

*Based on information available at LabourMarketInformation.ca

Local Employers

Bartek Ingredients Inc.
www.bartek.on.ca

Bartonair Fabrications
www.bartonairfab.com

Central Boiler Works & Manufacturing
www.centralboilerworks.com

George Brown Plumbing & Heating Ltd.

Hamilton Specialty Bar
www.hsbsteel.com

Hedde Marine Service Inc.
www.heddemarine.com

Tube-Mac Industries Inc.
www.tube-mac.com

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship
www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Local Labour Market Information
www.labourmarketinformation.ca

Interprovincial Standards
www.red-seal.ca

National Pipe trades Human Resources Committee
www.prismeconomics.com

Tradeability.ca
www.tradeability.ca

Careers in Construction
www.careersinconstruction.ca

Made With the Trades
www.madewiththetrades.com

Apprenticesearch.com
www.apprenticesearch.com

Ontario Job Futures
www.ontariojobfutures.ca

Colleges

Durham College
www.durhamcollege.ca

George Brown College
www.georgebrown.ca

Mohawk College
www.mohawkcollege.ca

Universities

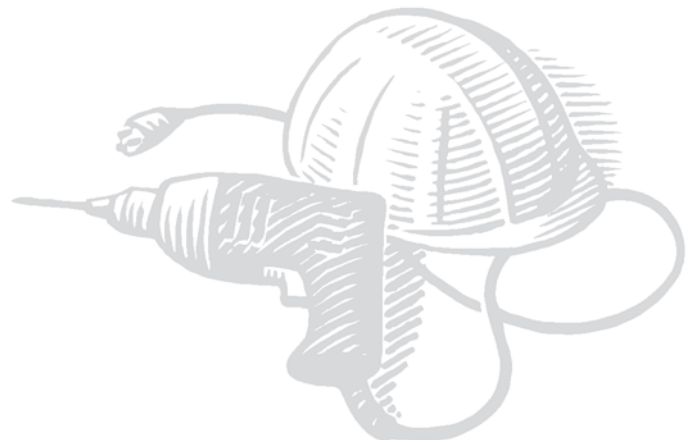
Associations

Pipeline Contractors Association of Canada
www.pipeline.ca

United Association of Plumbers, Steamfitters and Pipe Welders
www.ua.org

Ontario Construction Secretariat
www.iciconstruction.com

Construction Sector Council
www.csa-ca.org





Tilesetter

NOC 7283

What responsibilities will I have?

- Examine blueprints or project guidelines to plan, measure and mark work area and assemble necessary materials
- Remove old tiles, grout and adhesives using chisels and scrapers
- Spread plaster, cement or mortar on area where tiles will be placed
- Apply adhesives to tiles, set in position, and clean work area
- Lay and set mosaic tiles to create decorative wall, mural and floor designs



What education and training is required?

Currently to become a Tilesetter completion of secondary school is usually required. To gain trade certification you must complete a three to four year apprenticeship program or a combination of three years work experience, some high school, college or industry courses in tile setting in order to become eligible. In Ontario, certification is not mandatory but is strongly recommended. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as a Tilesetter...

- The following high school courses are recommended to prepare for a career in this field: **English and Mathematics**
- **Personal qualities:** good physical condition, problem solving, organizational skills
- **Applied skills:** ability to read diagrams, schematics, etc., ability to work independently, teamwork

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** construction companies, masonry contractors, self-employment
- **Typical hours of employment in Hamilton:** full-time; some overtime; some travel
- **Average hourly wage rate in Hamilton:** \$21.15/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability? Locally, Tilesetters continue to be in demand within the construction industry, especially residential (i.e. houses, town homes, condominiums) but also for non-residential construction projects such as shopping malls, office buildings, hospitals and schools.

In addition, the aging workforce of local Tilesetters will contribute to the number of job openings for this occupation.

How do I prepare for this position? To jump start your career as a Tilesetter, completing an apprenticeship program will be very useful in finding employment. The first step is to find an employer who is willing to take you on as an apprentice, and you can do this by applying directly to an employer or a joint apprenticeship council at a union office.

Future Job Outlook in Hamilton

Current: **GOOD***

5 Years: **GOOD***

*Based on information available at LabourMarketInformation.ca

Local Employers

Flooring Warehouse

www.theflooringwarehouse.com

Belluz Tile & Marble Ltd.

Dalla Riva Tile

Kuna Tile

Lupo Ceramics and Marble Ltd.

Matts Tile

Miklos Tile

Queens Tile

Ralken Home Improvements Inc.

Steve's Ceramic Tile Co.

Tilex

Traina Tiling and Restorations

Via Roma Marble & Tile Centre

Related Websites

Ministry of Training, Colleges, and Universities

www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Local Labour Market Information

www.labourmarketinformation.ca

Career MATTERS

www.ilc.org

Interprovincial Standards

www.red-seal.ca

Made With the Trades

www.madewiththetrades.com

Skilled Trades

www.apprenticetrades.ca

Terrazzo, Tile & Marble Trade School

www.ttmgo.org

Apprenticesearch.com

www.apprenticesearch.com

Colleges

Universities

Associations

Terrazzo, Tile and Marble Association of Canada

www.ttmac.com

Terrazzo, Tile and Marble Guild of Ontario, Inc.

www.ttmgo.com

National Floor Covering Association

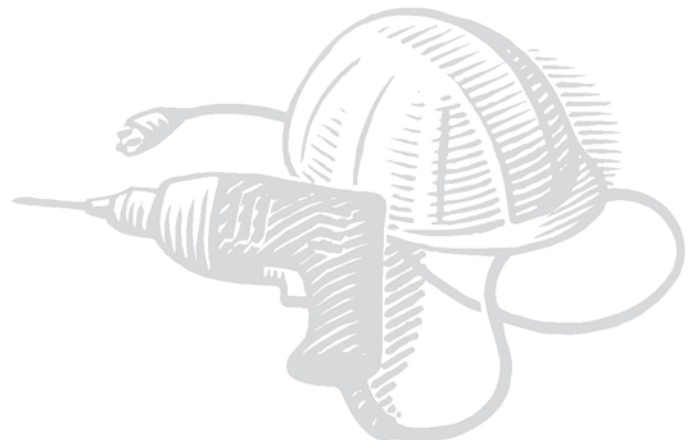
www.nfcaonline.ca

Ontario Construction Secretariat

www.iciconstruction.com

Construction Sector Council

www.csc-ca.org





Welder

NOC 7265

What responsibilities will I have?

- Read and interpret blueprints or welding process specifications
- Lay out, cut and form metal to specification
- Repair worn parts of metal products by welding on extra layers
- Fit sub-assemblies and assemblies together and prepare assemblies for welding
- Operate manual or semi-automatic welding equipment to fuse metal segments and flame cutting equipment
- Operate metal shaping machines such as brakes, shears and other metal straightening and bending machines
- Assist with the maintenance and repair of welding, brazing and soldering equipment
- May adjust welding heads and tooling according to work specifications



What education and training is required?

Currently to become a Welder completion of secondary school is required. In addition, completion of a three year apprenticeship or combination of over three years experience in the trade and some college or industry courses is required to be eligible for trade certification. However, in Ontario trade certification is voluntary but highly recommended. Interprovincial (Red Seal) trade certification, which allows qualified trades persons to work in other provinces and territories, is also available in Ontario.

To pursue a career as a Welder...

- The following high school courses are recommended to prepare for a diploma program: **English, Mathematics, Physics and co-op** is strongly recommended
- **Personal qualities:** interpersonal skills, and safety conscious
- **Applied skills:** math skills, ability to read diagrams and schematics, etc.

Where can I work? What will my hours be? How much money will I make?

- **Typical employers:** manufacturers of structural steel and platework, boilers, heavy machinery, aircraft and ships, melding contractors, welding shops and other industrial sectors, self-employment
- **Typical hours of employment in Hamilton:** full-time
- **Average hourly wage rate in Hamilton:** \$20/hr*

*Based on information available at LabourMarketInformation.ca



FUTURE JOB MARKET

What about my employability? The majority of job openings will result from the need to replace retiring workers as the average age for workers in this field is currently 45 years.

How do I prepare for this position? Manual welders, especially those with a wide variety of high skills will still be required for sophisticated fabrication tasks and repair work. Increasing your hands on experience in this field will greatly improve your employability.

Future Job Outlook in Hamilton

Current: **GOOD***

5 Years: **GOOD***

*Based on information available at LabourMarketInformation.ca

Local Employers

Avon Engineering

www.avonengineering.com

Bartonair Fabrications

www.bartonairfab.com

Bay-Lynx Mfg. Inc.

www.bay-lynx.com

Braemar Building Systems

www.braemarbuildings.com

B.S.B. Manufacturing Ltd.

www.bsbmfg.com

Butty Manufacturing

www.butymfg.com

Hess Machinery

www.hessmachinery.com

Colleges

Canadore College

www.canadorec.on.ca

Conestoga College

www.conestogec.on.ca

Confederation College

www.confederationc.on.ca

Durham College

www.durhamcollege.ca

Fanshawe College

www.fanshawec.ca

Lambton College

www.lambton.on.ca

Mohawk College

www.mohawkcollege.ca

St. Lawrence College

www.sl.on.ca

Related Websites

Ministry of Training, Colleges and Universities – Apprenticeship

www.edu.gov.on.ca/eng/training/apprenticeship/appren.html

Interprovincial Standards

www.red-seal.ca

Local Labour Market Information

www.labourmarketinformation.ca

Apprenticesearch.com

www.apprenticeshipsearch.com

Careers in Construction

www.careersinconstruction.ca

Career MATTERS

www.ilc.org

Skills Canada

www.skillsCanada.com

Universities

Associations

Canadian Welding Bureau

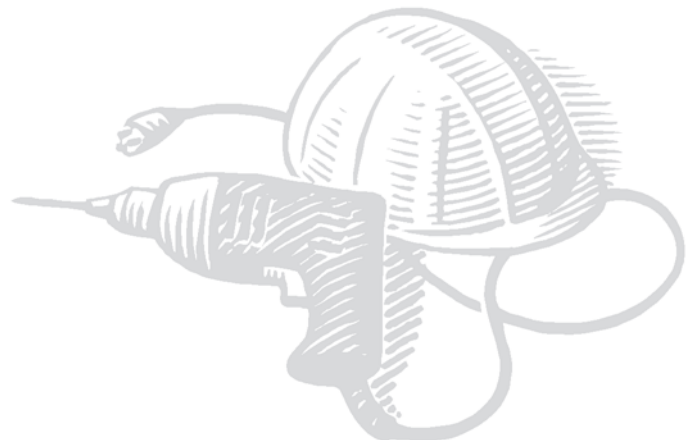
www.cwbgroup.org

Ontario Pipes Trade Council

www.optc.org

Construction Sector Council

www.csc-ca.org



Hamilton Training Advisory Board

Business, Labour & Community: Partners in Workforce Development

Established in 1997, the Hamilton Training Advisory Board is one of twenty-one Local Boards in Ontario. HTAB is a not-for-profit organization that draws on the expertise of a broad cross-section of our community to enable us to better identify and address existing and anticipated labour force needs.

At HTAB, we envision a healthy community where everyone achieves his or her potential. To accomplish this goal we:

- Profile the trends, opportunities, and priorities of Hamilton's labour market
- Identify skills shortages and future training requirements
- Share our research with the community to facilitate labour force planning and training
- Undertake projects and partnerships that address labour force issues

Log on to HTAB's website at www.htab.ca and you will:

Discover our community [Projects and Partners](#) promoting labour force development.

Learn about local labour market trends, opportunities, and priorities in our [Publications](#).

Connect to [Links](#) on training, employment, and labour market information.



Hamilton Training Advisory Board

Commission consultative sur la formation à Hamilton

117 - 77 James Street North
Hamilton, Ontario, L8R 2K3
Telephone: 905-521-5777
Fax: 905-521-9309
Email: info@htab.ca
Website: www.htab.ca

The Hamilton Training Advisory Board is funded by Employment Ontario

