

# CURRICULUM VITAE

Dara G. Bowser maato

Professional Status: MAATO member of the Association of Architectural Technologists of Ontario, Certified Building Technologist, Ontario Ministry of Housing Qualified & Registered (House, Small Buildings, Building Services, HVAC House)

## EXPERIENCE

- 1989-present Principle, Bowser Technical Inc Bowser Technical is a multi-disciplinary consultancy with a focus on the following:  
-Residential Energy Analysis, Energy Star Certification  
-HVAC Design; Heat Loss Calculation, Duct Design  
-HVAC System Fault Investigation, Expert testimony
- 1999-2006 EnerGuide for Homes Quality Assurance for Natural Resources Canada, Quality Assurance follow-up of selected evaluators in Ontario and Québec.
- 1997-2006 R2000 Quality Assurance for EnerQuality Corporation, Toronto. Each R2000 home in Ontario is reviewed for technical compliance and documentation prior to recommendation for certification.
- 1989-2005 Trainer; (French & English)  
-HVAC Design (Residential & Commercial) HRAI Certificate courses  
-"Residential Mechanical Ventilation" OBOA credit course  
-"Building Environmental Systems" Mohawk College
- 1982-1988 General Manager, Air Changer; (Heat Recovery Ventilator Manufacturer) Managed start-up corporation from product development through manufacturing, marketing and distribution throughout Canada & the USA to sale as a going concern. Involved in all phases of management including administration, governance, and ownership. At the time of start-up Heat Recovery Ventilators (HRV's) and central ventilation systems were experimental products in Canada. Today, these products are installed in over 50 % of new Canadian homes and exported to world-wide markets by Canadian manufacturers.
- 1979-1982 Project Manager, Allen-Drerup-White Ltd; Responsible for Energy Audits & HVAC design documentation and project management. Buildings types included residences, townhouses, apartments, light commercial and school buildings.
- Community: Executive Secretary (volunteer since 1994), HRAC Brant Haldimand Norfolk. ([www.HRACBrant.com](http://www.HRACBrant.com)) HRAC Brant represents HVAC Contractors in the local geographic area. HRAC Brant is one of the most active chapters of HRAC Canada, providing educational, promotional and representation services for local HVAC Contractors.
- Board Member (volunteer since 2007) Brantford Home Builder's Association
- Committees: CSA Technical Committee on Sizing of Residential Heating & Cooling Systems (CSA Standard F280, *Sizing of Residential Heating & Cooling Systems*).
- CSA Technical Committee on Requirements for Residential Ventilation (CSA Standard F326, *Residential Mechanical Ventilation Requirements*).
- CSA Technical Subcommittee on 22.2 #113 Electrical & Safety Certification for Fans and Ventilators.
- HRAI Committee on Contractor Accreditation, (past chair)
- Diploma: ARCHITECTURAL TECHNOLOGY, Vanier College 1977

- Studies:** System Fault Investigation, Various clients, including, Union Gas, State Farm Insurance Co., the Ontario R-2000 Program, various owners, contractors, consulting engineers and municipal governments. Typical investigations include insufficient heating/cooling, soot accumulation, combustion back-spillage, high energy bills, poor comfort, and excessive moisture.
- Blower Efficiency in Domestic Heating Systems, Canadian Electrical Association-1995, with Unies Ltd, Survey component Quebec region/Furnace Manufacturers
- Assessment of Residential Heat Loss/Gain and Energy Modeling Software; NRCan, comparison for accuracy, input time, ease of use, for available Canadian heat Loss/gain calculation and energy prediction software.
- Assessment of Residential Furnaces Filters; CMHC: In-home testing using multi-station real-time optical laser particle counting data collection system developed by Bowser Technical. Parameters studied include particle levels, indoor/outdoor air change, furnace airflow and power consumption, ozone levels etc.
- R-2000 National Audit (with Enermodal Engineering) Field investigation support services, air-tightness testing.
- Furnaces, Heat Distribution and Control; Ministry of Housing, Ontario. (with Allen-Drerup-White Ltd). Field investigation, and performance evaluation of energy-upgrade measures for mechanical systems in single-detached housing.
- Speaking:** Complying with the Mechanical Ventilation Requirements of the 1990/93 Ontario Building Code (Various HRAI and OBOA Chapter meetings)
- Rental Housing, Audits and Monitoring Methods; The Professional Site Audit; "The New Neighborhood" forum, 1983, Ontario Ministry of Municipal Affairs and Housing. Panel presentation.
- Training:** HRAI Residential Mechanical Ventilation, 1992, 1993, 1996; Revisions of text, content and artwork including new duct sizing procedure, extensive revisions to the make-up air prediction and design procedure, modularization of course material to accommodate differing requirements of NBC, OBC & BCBC.
- OBOA Residential Mechanical Ventilation, 1993, Developed new 2-day training course for building officials including 200 page reference manual, teaching guide, presentation materials, examination. Managed development process including pilot course and review committee, trainer training.
- Writing:** Clearing the Air, regular column in the Ontario Building Officials Newsletter from 1992 to 2004.