

➔ **MARCUS DELL, M.A.Sc., P.Eng., BEP**

**Expertise & Role**

Mr. Dell is a professional engineer who specializes in practical solutions to building enclosure problems. He consults on a wide variety of project types including rehabilitation of existing structures, new construction, and litigation support. He combines his academic training with over 20 years of work experience to offer all-around knowledge of the application of building science principles to buildings around North America.

Marcus assisted in a project to study the performance of building enclosure assemblies and details in the high-rise building stock in the BC Lower Mainland. His expertise resulted in him being invited by the Washington State Senate to participate in a task force that resulted in substantive changes to the Condominium Act.

Prior to co-founding RDH in 1997, Marcus worked for another BC-based engineering firm for seven years. Early in his career, he worked for two years at the University of Waterloo conducting an industry-sponsored research program and assisting with instruction of the building science curriculum. This research information was used to meet the requirements for a Masters degree in civil engineering with emphasis on Building Science.

Marcus is a shareholder and Principal of RDH and as such participates in the overall direction and management of the firm.

**Education**

- B.A.Sc., Civil Engineering, University of Waterloo
- M.A.Sc., Civil Engineering, University of Waterloo
- Management Skills in Advanced Technology, Simon Fraser University
- Building Envelope Professional (BEP), AIBC/APEGBC program

**Memberships**

- Member, Association of Professional Engineers & Geoscientists of British Columbia (APEGBC)
- Member, Building Owners and Managers Association (BOMA)
- Member, Professional Association of Managing Agents (PAMA)
- Director, RCI Inc. (formerly Roof Consultants Institute)
- Committee Member, technical review committee for APEGBC
- Past Director, British Columbia Building Envelope Council

**Senior Building Science Specialist**



**Typical Projects**

**NEW CONSTRUCTION**

Marcus has provided design concept and construction document review of the building enclosure as well as field review during construction for numerous new, non-combustible buildings including:

- ➔ Jacobsen, Vancouver, BC
- ➔ Bentley, Vancouver, BC
- ➔ Summerhill, North Vancouver, BC
- ➔ Spruce, Vancouver, BC
- ➔ Carey Theological Residence, UBC, Vancouver, BC
- ➔ False Creek Energy Centre, Vancouver, BC
- ➔ Seymour-Capilano Filtration Plant, North Vancouver, BC



Jacobsen, Vancouver, BC - steel frame construction

**REHABILITATION AND MAINTENANCE**

Marcus has provided investigation, design, and construction review for renewal and rehabilitation programs to extend the services lives of existing buildings and address the enclosure failures on numerous buildings in British Columbia. Some examples of non-combustible buildings include:

- ➔ Science World, Vancouver, BC
- ➔ 1188 Howe Street, Vancouver, BC
- ➔ Carnarvon Towers, New Westminster, BC
- ➔ Solhiem Place, Vancouver, BC

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- Shon Yee Place, Vancouver, BC
- Panorama Gardens, Vancouver, BC
- Bellevue Place, West Vancouver, BC
- Claridges, Burnaby, BC (targeted rehabilitation)
- Villa Jardin, Burnaby, BC (targeted rehabilitation)
- 888 Beach, Vancouver, BC (comprehensive maintenance)
- Paramount Tower One, Burnaby, BC (comprehensive maintenance)



Science World, Vancouver, BC

Marcus has been involved with the rehabilitation of over 30 wood-framed buildings. The following are a few examples:

- The Shorewalk, Ladner, BC
- 555 West 14th Avenue, Vancouver, BC
- Gilford Court, Vancouver, BC
- Willow Point Estates, Campbell River, BC



The Shorewalk, Ladner, BC - full building enclosure rehabilitation

Marcus has also consulted on numerous low-slope and flat roof assemblies. This work includes both replacement and maintenance. The following are a few examples:

- Regatta, Vancouver, BC - wood-frame
- Palace Quay, New Westminster, BC
- Guinness Tower, Vancouver, BC
- Iona Wastewater Treatment Plant, Richmond, BC
- Lions' Gate Wastewater Treatment Plant, West Vancouver, BC

**LITIGATION SUPPORT**

Marcus has provided professional opinions as part of the process to resolve disputes and legal actions related to building enclosure performance related problems. He has been accepted as an expert witness in both Canada and the United States.

- Pacific Point, Vancouver, BC
- The Evergreen, Burnaby, BC

- Claridges, Burnaby, BC
- Willow Point Estates, Campbell River, BC - wood-frame
- The Palladian, Vancouver, BC - wood-frame
- Pacific Regent, La Jolla, CA
- GEICO Headquarters, Poway, CA

**HISTORIC BUILDINGS**

- Marine Building, Vancouver, BC - restoration of historic brick and terra cotta
- Lampson Street School, Victoria, BC - restoration of historic brick & terra cotta
- City Square Mall, Vancouver, BC - restoration of stone masonry



Marine Building, Vancouver, BC – commercial tower

**Presentations & Publications**

Marcus has been invited to speak on building enclosure and restoration issues at industry seminars and conferences. Examples include presentations for:

- British Columbia Building Envelope Council (BCBEC)
- Sealant and Waterproof Restoration Institute (SWRI)
- Canadian Mortgage and Housing Corporation (CMHC)
- Masonry Contractors Association

Marcus has prepared several technical papers and publications:

- “Performance of Stucco-Clad Wood-Frame Exterior Walls in a Temperate Rain Forest,” presented at ASTM Committee E-6 Meeting, March 1996.
- “Distress of Stucco Clad Buildings in the Vancouver Area,” presented at the Seventh Conference on Building Science, Toronto, ON, March 1997.
- “The Best Practice Guide for Building Envelope Wood Frame Construction in the Coastal Climate of British Columbia,” assisted in the development this guide, 1999.