CURRICULUM VITAE

Dana Bjornson, P.Eng., M.Arch.

(403) 208-4545 | dbjornson@30fe.com

700 2nd Street SW, 19th Floor, Calgary, AB T2P 2W2

EXPERT SUMMARY

Ms. Dana Bjornson is Practice Lead of the Building Science & Building Envelope Engineering group at 30 Forensic Engineering. She holds a Master of Architecture from the University of Oregon and an Honours Bachelor of Applied Science (Civil) from the University of British Columbia. Dana's more than 20 years of industry experience includes the founding of Optimize Envelope Engineering, where she acted as President and Responsible Member from 2010 – 2023. She is a licensed professional engineer in the provinces of Alberta, Saskatchewan, and British Columbia, and has been qualified as an Expert Witness in Building Envelope Engineering, appearing in Alberta Provincial Court and the Court of King's Bench.

SPECIALIZED PROFESSIONAL COMPETENCIES

- Building Envelope Engineering
- Experience interacting with the construction industry in various roles including design review, site review, investigation, design assistance, project management, report writing, energy analysis, and research
- Registered as a professional engineer with APEGA, APEGS, and EGBC
- LEED® Accredited Professional
- Written and reviewed technical reports for arbitration, mediation, and litigation
- Qualified expert witness in Building Envelope Engineering
- Appeared in Alberta Provincial Court and Court of King's Bench

ACADEMIC BACKGROUND

Master of Architecture, University of Oregon, Eugene, OR, 1999

Honours Bachelor of Applied Science (Civil), University of British Columbia, Vancouver, BC, 1994

PROFESSIONAL EXPERIENCE

30 Forensic Engineering

Practice Lead, Building Science
2023 – Present, Calgary, AB

- Leads the Building Science & Building Envelope Engineering group
- Building science
- Building systems and structural failures analysis

Optimize Envelope Engineering

President and Senior Building Envelope Engineer
2010 – 2023, Calgary, AB

- Responsible member and President responsible for building envelope design and investigation on a variety of projects including commercial, single-family, and multi-family residential projects.
- Managed employees and project team on complex restoration projects

J.S. Held ULC

Director of Building Envelope
2022, Calgary, AB

- Responsible for building envelope forensic investigations on complex projects.

Halcrow Yolles

Senior Building Science Engineer
2008 – 2009, Calgary, AB

- Responsibilities included managing the tender process from specifications through to substantial completion, completing site reviews, design reviews, physical condition assessments, and building envelope investigations.

A.D. Williams Engineering Inc.

Building Science Engineer and Project Manager
2005 – 2008, Calgary, AB

- Completed building envelope investigations, site reviews, reports, specifications, and drawing reviews for new construction and restoration projects.
- Completed Reserve Fund Studies and coordinated multi-disciplinary teams of professionals.

Okanagan University College

Instructor, Interior Design Certificate Program
2003 – 2004, Vernon, BC

Acutruss Industries

Truss Designer
2003 – 2004, Vernon, BC

Energy Studies in Buildings Laboratory

Task Leader and Research Assistant – Vista House
2003, Eugene, OR

Advantage Wallsystems Inc.

BC Manager ICF Sales and Training
2002, Vernon, BC

Demetriou and Assoc. Architects

Project Manager and Intern Architect
1999 – 2001, Kirkland, WA

Energy Studies in Buildings Lab

Research Assistant, Graduate Research Fellowship
1996 – 1999, Eugene, OR

- Worked on U.S. Department of Energy grant research including publications listed below. Assisted with DOE 2.0 programming to simulate solar wall in modular structure.

PROFESSIONAL SOCIETIES AND ASSOCIATIONS

- Association of Professional Engineers, Geologists, and Geophysics of Alberta (APEGA)
- Association of Professional Engineers, Geologists, and Geophysics of Saskatchewan (APEGS)
- Engineers and Geoscientists of British Columbia (EGBC)
- American Society for Testing and Materials (ASTM)

VOLUNTEER EXPERIENCE

- APEGA representative on Alberta Building Sub-Council
- Member of APEGA Schedule Task Force
- Member of joint APEGA/AAA Building Envelope Task Force
- Previous member of BILD Technical Committee
- Previous member of ASTM Committees E36 and E06
- Submitted two accepted Part 9 code change requests to Codes Canada (ID 1097 Venting and ID 1095 Acrylic Stucco)
- Observer on Codes Canada Public Space
- Presented for organizations including CHBA-ED, BILD Calgary, Siding Contractors Association Alberta (SCAA), and Canadian Condominium Institute (CCI)

PUBLICATIONS AND ACADEMIC SPEAKING ENGAGEMENTS

Publications—University of Oregon

- On-grade Insulated Floor Panel System (Report 1 and 2)
- Using Simulation to Design Energy-Efficient Modular Classrooms
- Design and Evaluation of Energy-Efficient Modular Classroom Structures, Phase II
- Structural and Thermal Testing of the On-Grade Insulating Floor Panel System
- Industrialized Housing Trends in the U.S.