

# **JEFF UDALL**

**B.Sc. (Physics), B.Eng. (Mechanical), M.A.Sc. (Civil Engineering), P.Eng., CFEI**

## **CONSULTING FORENSIC ENGINEER**

- Structural Design and Damage Assessment
- Accident Reconstruction for Motor Vehicle Accidents
- Failure Analysis of Materials & Mechanical Equipment
- Fire and Explosion Investigation
- Successfully qualified as an expert in court to give testimony for motor vehicle accident reconstruction and as a structural engineer.

## **ACADEMIC BACKGROUND**

- Masters of Engineering (M.A.Sc. Civil/Structural), McMaster University, 2007
- Bachelor of Engineering (B.Eng. Mechanical), McMaster University, 1993
- Bachelor of Science (B.Sc. Physics), University of Western Ontario, 1990

## **ADDITIONAL COURSES & SEMINARS**

- The Fire Science Behind Fire Patterns – CAFI Webinar – November 2019
- Arc Mapping, one of the four sources of information in Origin Determination – CAFI Webinar June 2019
- International Association of Arson Investigators – Surviving a NFPA 1033 Challenge – May 2019
- CAFI professional development course – Investigation and Identification of Incendiary Fires – April 2019
- Fall Protection Training – March 2019
- PC-Crash Training – Advanced course, November 2012
- PC-Crash Training – Essentials course, November 2012
- Canadian National Advanced Fire, Arson and Explosion Investigation Training Program five day course recertification, CFEI (NAFI) October 2012
- Canadian Association of Technical Accident Investigation and Reconstruction (CATAIR) Annual Crash Conference and AGM – August 2012
- Crash Data Retrieval Specialist – 32 hour course, December 2011
- Design and Maintenance of Roof Structures on Industrial Buildings – EPIC, October 2010
- Response of Materials and Structures to Fires – Carleton University Department of Civil Engineering, May 2009
- Residential Building Envelope and Structure Assessment and Repair – EPIC, March 2009
- Mould, Petroleum Hydrocarbons, Perchlorates – Technical Seminar, ALS, March 2008
- Investigating Propane and Natural Gas Explosions (CAFI), November 2007
- Canadian National Advanced Fire, Arson and Explosion Investigation Training Program, CFEI (NAFI)
- CATAIR Annual Crash Conference, August 2007
- Fire Dynamics Simulator (FDS) and Smokeview, Carleton University Department of Civil Engineering, May 2007
- Investigating Fires Involving Electrical Power Distribution Systems (CAFI), April 2007
- Architects & Engineers Loss Control Seminar, Feb. 2007, Feb 2008
- Courses required for completion of Master's of Civil Engineering (2003-2006)
- Ontario Building Code short courses: House, Small Buildings, Building Structural, General Legal, 2005/2006
- Fundamentals of Connection Design, AISC, 2002
- Structural Bracing, AISC, 2001
- Accident Reconstruction Using Conservation of Momentum and Energy, SAE International, 2001
- Principles of Failure Analysis, ASM International, 2001
- Forensic Engineering & Failure Analysis, University of Toronto, 2001
- Motor Vehicle Accident Reconstruction, SAE International, 2000
- Pump System Analysis, Fluid Design Inc. & Sandwell EPC Inc., 2000
- Finite Element Analysis, Ansys Training Center

## **EMPLOYMENT BACKGROUND**

Caskanette Udall Consulting Engineers

Partner, Engineer, November 2005 – Present

Accident Reconstruction for Motor Vehicle, Pedestrian, Commercial Vehicle, Farm Vehicle,  
Pedestrian

Structural Design and Damage Assessment – Residential, Industrial, Agricultural

Failure Analysis of Materials and Mechanical Equipment

Fire Investigation

Caskanette & Associates Consulting Engineers

Associate Engineer, November 1999 – November 2005

Babcock & Wilcox Canada

Project and Design Engineering, 1993 - 2005

Boiler Design and Performance for Boilers in Utility Power Plant, Pulp & Paper Mills, and Industrial  
Plants

Structural Steel Design and Stress Analysis including Weld Design and Sizing

Piping Design and Flexibility Analysis

Failure Analysis of Piping and Structural Systems

SteelCraft Industries Limited, FCF Division

Project Supervisor, 1997

Custom Steel Fabrication Project Management

Design and Drafting of Custom Pressure Vessels and Associated Components

Purchasing, Planning, and Routing of Projects for Manufacturing

## **PROFESSIONAL SOCIETIES**

- Professional Engineers of Ontario (PEO)
- Ontario Society of Professional Engineers (OSPE)
- Canadian Association of Technical Accident Investigators and Reconstructionists (CATAIR)
- Society of Automotive Engineers (SAE)
- Canadian Association of Fire Investigators (CAFI)
- National Association of Fire Investigators (NAFI)