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Curriculum Vitae

Chris J. Medwell, P.E.

Profession: Mr. Medwell is an engineer specializing in the investigation and reconstruction of motor vehicle collisions. He has considerable experience with leading edge technology in the field, including tractor-trailer and automobile "black box" data retrieval systems, robust 3-dimensional accident reconstruction and simulation programs, surveying equipment, and vehicle accelerometers. Mr. Medwell has both a mechanical and a civil engineering background that gives him insight into both the motor vehicle and the roadway design features as factors in accident dynamics and causation. Mr. Medwell also applies his expertise to cause and origin investigations of motor vehicle and machinery fires.

Licensure: Professional Engineer, State of Florida, License Number 70343
Professional Engineer, State of Alabama, License Number 29499
Professional Engineer, State of Mississippi, License Number 19668
Professional Engineer, State of Texas, License Number 99481
Professional Engineer, Province of Ontario (Canada), License Number 90259102

Certification: Motor Vehicle Specialty Mechanic, State of Michigan (Automobile and heavy truck brakes, suspension and steering, and motorcycle repair), Certificate Number M201931

Education: *The University of Waterloo*, Waterloo, Ontario, Canada
1977 to 1982 - Bachelor of Applied Science in Mechanical Engineering

Experience: *Bloomberg Consulting, Inc.* - Pensacola, FL
2006 to present – Accident Reconstructionist

HRYCAY Consulting Engineers Inc., previously Becker Transportation Safety or BTS Consulting Engineers - Windsor, Ontario, Canada
1989 to 2006 - Investigative Engineer, Motor Vehicle Accident Group

Ford Motor Company of Canada - Oakville, Ontario, Canada
1987 to 1988 - Dealer Operations Manager, Atlantic Region
1983 to 1987 - Zone Service Manager, Atlantic Region
1982 to 1983 – Warranty Claims, Service Engineering, Service Hotline

Transport Canada - Ottawa, Ontario, Canada
1979 - Department of Road Safety

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**Professional
Associations:**

- ◆ Alabama Board of Professional Engineers & Land Surveyors
- ◆ Florida Board of Professional Engineers
- ◆ Mississippi Board of Licensure for Professional Engineers & Surveyors
- ◆ Texas Board of Professional Engineers (TBPE)
- ◆ Professional Engineers Ontario (PEO)
- ◆ Society of Automotive Engineers (SAE)
- ◆ National Association of Fire Investigators (NAFI)

**Professional
Development:**

- ◆ Since 1989, Mr. Medwell has analyzed hundreds of SAE technical papers, crash tests, and other leading edge research in the field of engineering and accident reconstruction. In 2007, Mr. Medwell took and passed both the Fundamentals of Engineering (FE) and the Principles and Practice of Engineering (PE) examinations, required for licensure as a Professional Engineer in the USA. For the PE exam, Mr. Medwell chose to take the Civil Engineering Transportation specialty, which covers such topics as Transportation Planning, Traffic Analysis, Traffic Safety, and Roadway and Roadside Design.
- ◆ “Heavy Vehicle Crash Reconstruction”, *National Association of Professional Accident Reconstruction Specialists*, Ocean City, MD (October 2009)
- ◆ “Crash Data Retrieval (CDR) Data Analyst Certification” (Vehicle “Black Box” Systems), *Collision Safety Institute*, New Orleans, LA (August 2009)
- ◆ “National Seminar on Fire Analysis Litigation”, *National Association of Fire Investigators*, Sarasota, FL (August 2008)
- ◆ “Vehicle Fire Investigations – Protecting and Preserving Your Evidence”, *Florida Advisory Committee on Arson Prevention*, Tallahassee, FL (June 2008)
- ◆ “Highway Vehicle EDR Symposium”, *Society of Automotive Engineers (SAE)*, Ashburn, VA (September 2007)
- ◆ “Cummins INSITE 6 Qualification”, *Cummins Mid-South L.L.C.*, Morgan City, LA. (June 2007)
- ◆ “Human Factors for Traffic Accident Reconstruction”, *Accident Dynamics Research Center*, University of Massachusetts, Amherst, MA. (June 2007)
- ◆ “REC-TEC Accident Reconstruction Software Training”, taught by George M Bonnett; *IPTM*, Jacksonville, FL. (August 2006)
- ◆ “Caterpillar Engine Control Modules, Data Extraction”, *Thompson Power Systems*, Birmingham, AL. (August 2006)
- ◆ “Crash Data Retrieval (CDR) Data Analyst Certification” (Vehicle “Black Box” Systems), *Collision Safety Institute*, Clinton Township, MI (March 2006)
- ◆ “Accident Reconstruction,” 2005 World Congress and Exhibition, *SAE* Detroit, Michigan (April 2005)

- ◆ “DDEC Reports/Data Extrication,” *Detroit Diesel Training Center*, Redford, Michigan (December 2004)
- ◆ “Safety, Braking, Steering,” *SAE 2004 Commercial Vehicle Engineering Congress and Exhibition*, Chicago, Illinois (October 2004)
- ◆ “Motor Vehicle Theft & Fire Investigation,” *Michigan Arson Prevention Committee*, Portland, Michigan (June 2004)
- ◆ “Motor Vehicle Theft & Fire Investigation”, *Michigan Arson Prevention Committee*, Detroit, Michigan (June 2003)
- ◆ “Accident Reconstruction,” *SAE 2003 International Congress and Exposition*, Detroit, Michigan (March 2003)
- ◆ “Hands on Training HVE- 3D,” *Engineering Dynamics Corporation*, Windsor, Ontario (July 2002)
- ◆ “Crash Data Retrieval (CDR) Operator’s Certification Course,” *Collision Safety Institute*, Toronto, Ontario (June 2002)
- ◆ “Accident Reconstruction,” *SAE 2002 International Congress and Exposition*, Detroit, Michigan (March 2002)
- ◆ “Braking Performance of Heavy Commercial Vehicles,” *Richard Radlinski*, at International Truck Assembly Plant, Chatham, Ontario (June 2001)
- ◆ “Electronic Engine Controls & Accident Reconstruction,” *BTS Consulting Engineers*, Windsor, Ontario (June 2001)
- ◆ “Traffic Control in Survey Zones,” *BTS Consulting Engineers*, Windsor, Ontario (February 2001)
- ◆ “Brakes/ABS Braking Systems,” *Snap-On Tools Training Center*, Auburn Hills, Michigan, (April 2000)
- ◆ “HVE Forum,” *Engineering Dynamics Corporation*, Atlanta, Georgia, (April 1999)
- ◆ “Fire Investigation/Arson Task Force Seminar,” *International Association of Arson Investigators (Ontario Chapter)*, London, Ontario, (October 1998)
- ◆ “NFPA 921 Fire & Explosion Investigation,” *International Association of Arson Investigators (Ontario Chapter)*, Burlington, Ontario, (September 1997)
- ◆ “Accident Reconstruction,” *SAE 1997 International Congress and Exposition*, Detroit, Michigan, (February 1997)
- ◆ “Accident Reconstruction,” *SAE 1996 International Congress and Exposition*, Detroit, Michigan, (February 1996)
- ◆ “Crash Tests & Heavy Truck Skid Tests,” *Transportation Research Centre*, East Liberty, Ohio (October 1995)
- ◆ “Vehicle Fire/Theft Investigation,” *Criminal Justice Training Center, Macomb Community College*, Macomb County, Michigan (July 1995)
- ◆ “Human Factors in Traffic Collisions,” *Canadian Association of Technical Accident Investigators and Reconstructionists (CATAIR)*, Mississauga, Ontario (August 1994)

- ◆ “Emergency Collision Avoidance”, *Labatt’s Test Track*, Mississauga, Ontario (August 1994)
- ◆ “Air Brake Endorsement,” *St. Clair College*, Windsor, Ontario (May 1994)
- ◆ “Accident Reconstruction - Technology and Animation IV,” *SAE 1994 International Congress and Exposition*, Detroit, Michigan (March 1994)
- ◆ “Vehicle Fire/Theft Investigation,” *Criminal Justice Training Center, Macomb Community College*, Macomb County, Michigan (July 1993)
- ◆ “Accident Reconstruction - Technology and Animation III,” *SAE 1993 International Congress and Exposition*, Detroit, Michigan (March 1993)
- ◆ “BH₂VK Crash Testing Project,” *Mobility Systems Inc.*, San Bernardino, California (August 1992)
- ◆ “Safety,” *SAE 1992 Future Transportation Technology Conference and Exposition*, Costa Mesa, California (August 1992)
- ◆ “40th Annual Seminar,” *International Association of Auto Theft Investigators, Inc.*, Toronto, Ontario (August 1992)
- ◆ “Automotive Electrical Systems Servicing,” *Oakland Community College*, Auburn Hills, Michigan (Winter Term 1992)
- ◆ “Accident Reconstruction - Technology and Animation II,” *SAE 1992 International Congress and Exposition*, Detroit, Michigan (February 1992)
- ◆ “Fire Investigation Seminar,” *International Association of Arson Investigators, Inc. (Ontario Chapter)*, Windsor, Ontario (June 1991)
- ◆ “Front Suspension and Steering Service,” *Oakland Community College*, Auburn Hills, Michigan (Winter Term 1991)
- ◆ “Technical Fundamentals for the Fire Investigator,” *University of Wisconsin*, Madison, Wisconsin (April 1991)
- ◆ “Accident Reconstruction: Technology and Animation,” *SAE 1991 International Congress and Exposition*, Detroit, Michigan (February 1991)
- ◆ “Brake System Service,” *Oakland Community College*, Auburn Hills, Michigan (Fall Term 1990)
- ◆ “Accident Reconstruction” and “Vehicle Crashworthiness and Occupant Protection in Frontal Collisions,” *SAE 1990 International Congress and Exposition*, Detroit, Michigan (February 1990)
- ◆ While employed with Ford, Mr. Medwell regularly attended short courses and seminars for training in servicing and diagnostic procedures for various gasoline and diesel engines, drive train, steering, suspension and braking systems, electronic engine control systems, anti-lock brake systems, and electronic fuel injection. Mr. Medwell also undertook training in Basic Service Management and Dealership Accounting Practices.



Synopsis:

Mr. Medwell has extensive knowledge and experience in motor vehicle accident investigations and reconstruction. He has been involved in the documentation, analysis, and reconstruction of more than 900 serious motor vehicle accidents, including more than 300 involving heavy vehicles (tractor-trailers, trucks, buses) and more than 80 involving motorcycles. Mr. Medwell has also investigated and reconstructed numerous collisions involving pedestrians and bicycles. His experience has included time/speed/distance analysis, mechanical and electrical system failures, nighttime and daytime visibility studies, seat belt use, headlamp filament analysis, and traffic signal sequencing. He has considerable experience with leading edge technology in the field, including tractor-trailer and automobile "black box" data retrieval systems, robust 3-dimensional accident reconstruction and simulation programs, surveying equipment, and vehicle accelerometers.

Mr. Medwell has testified in court or at deposition as an expert or consultant in Alabama, Florida, Illinois, Indiana, Michigan, Nebraska, New York, Oklahoma, Ontario, and Grand Cayman. He has been qualified as an expert in both state and federal courts. In the area of accident reconstruction, he has given testimony regarding speeds of vehicles, avoidance possibilities, vehicle crush and delta-v, pedestrian impact evidence, time and distance relationships, headlamp usage, reaction times, etc. He has testified regarding Traffic Impact Analysis. He has also testified regarding the cause and origin of vehicle fires, and regarding the physical condition of a motor vehicle being consistent or inconsistent with the reported circumstances of an insured fire, collision, or theft loss.

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