

Brent DeRose, PE, PS

Forensic Engineering Expertise

Origin & Cause

Determine the source and responsible party or element related to water entry into a building whether it be through the building envelope or caused within the building interior. Examples of past work include failure of roofing and wall cladding causing moisture entry, humidity and condensation-related losses, wastewater and groundwater entry.

Building Fenestration/Building Envelope

The building envelope is a building's first line of defense to moisture entry. Identifying the type of system (single versus multiple barrier) and how the various adjoining materials' water and air barriers connect is key to effective moisture management. Examples of past work include storefront window exams, residential window installations, exterior cladding specification and installation and roofing materials and installation.

Building Pathology/Construction Defects

The building pathologist relies on an in-depth knowledge of building design, construction, use, and changes as well as assessing the environment of use and the materials and how these interrelate to systematically identify, investigate, and diagnose defects in a building.

Inspection and Evaluation of Roofing Systems

This includes steep and low slope roofs as well as various types of roofing materials, including both common and unique roofing applications. Past work involved offering opinions and repairs related to installation deficiencies and storm-related damages, including for hail and wind.

Civil Engineering

Site grading, earth balance, soil stabilization, road design, drainage, hydrology, sanitary sewer, water main, storm sewer systems, site utilities, direction boring, on-site sewage disposal systems and wells, and pumping stations.

Qualifications & Training

- Nondestructive Testing Methods in Structural and Building Enclosure Assessment, IIBEC International Convention and Trade Show, March 2022
- Testing Built-up and Modified Bitumen Roofs for Hail Damage, IIBEC International Convention and Trade Show, March 2022
- Are Air Barriers Vapor Barriers and Water-Resistive Barriers the Same?, IIBEC International Convention and Trade Show, March 2022
- Making the Connection: Fastening Through Continuous Insulation, IIBEC International Convention and Trade Show, March 2022
- Low Rise Foam Adhesive Testing and Research, IIBEC International Convention and Trade Show, March 2022
- ASCE 7-22 Wind Design Provisions, IIBEC International Convention and Trade Show, March 2022
- University of Wisconsin College of Engineering Metal Roofing Systems, Rob Haddock, December 2021
- Utilities Public and Otherwise, McKissock, October 2021
- Test Method for Wind Load Resistance of Flashing Used with Metal Roof Systems, RICOWI, March 2021

- Use of Bituminous-Based Interlayered Systems, Saw and Seal, and Rubblization to Control Reflective Cracking, ASCE, December 2020
- Legal Importance of Inconsistent Design Specifications and Manufacturer Warranties, IIBEC, June 2020
- Moisture Movement and Condensation Control in Exterior Wall Assemblies, IIBEC, June 2020
- Performance Analysis of Aged TPO, IIBEC, June 2020
- The First Three Rules of Construction, ASCE, December 2020
- Complete Street Design, ASCE, December 2020
- Legal Issues and Potential Pitfalls That Confront Building Enclosure Consultants, Architects, Engineers, and Contractors, IIBEC, December 2020
- IIBEC Virtual International Convention and Trade Show, July 2020
- Avoiding Ethical Pitfalls in Failure Investigations, March 2020
- I-96/I-196 Interchange Flip, MSPE Western Chapter, February 2020
- Crossing the Grand, MSPA Western Chapter, January 2020
- ASCE – Roadway Construction Quality Control, November 2019
- ASCE – Construction Vibrations, May 2019
- ASCE – Introduction to Jet Grouting and its Applications, April 2019
- ASCE – Avoiding Problems in Specifying Metal Roofing, March 2019
- ASCE – Preparing and Implementing Construction Storm Water Pollution Prevention Plans, February 2019
- ASCE – Green Roof Design Guidelines, January 2019
- ASCE – Earthworks 101, December 2018
- ASCE – Structural Thermal Bridging in the Building Envelope, December 2018
- ASCE – Permeable Pavement - Design Considerations and tips for avoiding failures, December 2018
- ASCE – Effective Pavement Management and its Benefits, December 2018
- ASCE – Live Webinar - Hydrological Trespass and Nuisance Considerations in stormwater, May 2018
- RICOWI – 2018 Hurricane Michael Investigation, October 2018
- Webinar, HEC-RAS Culvert Hydraulics, December 2017
- Webinar, When Ethics are Ignored: Lessons from Forensic Engineers, December 2017
- Real Developments Gone Bad, September 2017
- NFIP/FEMA Flood Plain Management, October 2017
- Webinar, Storm Water Management Alternatives for Small Commercial Sites, December 2016
- Webinar, Creating Design Storms for Rainfall Runoff Models, December 2016
- Conventional and Alternative Septic Systems, September 2016
- Water Entry Prevention and Moisture Control in Buildings, University of Wisconsin-Madison, August 2017
- Air Barriers & Their Influence on Roof Loading, March 2016
- Hail Resistance of Low Slope Single Ply Roof Systems, March 2016
- Moisture Migration: Causes and Cures, March 2016
- Roof Fasteners for Metal Deck Roofing Systems, March 2016
- Condensation in Wall Assemblies, March 2016
- Recent Development in Below-Grade and Plaza Waterproofing Systems, March 2016
- Improving Roof Reliability: Lessons from Wind Damage Reports, March 2016
- Testing and Results of Severe Hail Exposure, March 2016
- Certified Roof Inspector, Certified by HAAG Engineering (2009-2014)
- Webinar – Designing for High Winds, National Society of Professional Engineers, February 2015
- Webinar, Engineering Ethics, National Society of Professional Engineers, February 2015

- Measuring the Thermal Benefits of Light to Dark Roof Membranes and Alternate Insulation Strategies, March 2014
- Siding Attachments, March 2014
- Fenestrations, March 2014
- The Effects of Hail on Metal Roofing Systems, March 2014
- Maintaining Asphalt Pavements, January 2014
- Reducing Risk of Moisture Problems in Concrete Roof Decks, March 2013
- Wind Uplift Resistance of Commercial Roofs, March 2013
- How to Survey a Slate Roof, March 2013
- International Codes, March 2013
- Roof Ventilation for Cathedral Ceilings, March 2013
- Roofing Technology, Maintenance, and Inspections, March 2012
- Roof Technology & Science I & II, February 2011
- Asbestos and Lead Awareness, May 2010
- Low Slope Roofing Systems, December 2008
- Composition and Wood Roofs Damage Assessment, November 2004
- Mechanical Damage to Roofs and Automobiles, November 2004
- Inspection and Evaluation of Residential Roofing, October 2004
- Commercial Roof Damage Assessment, October 2004

Education

Bachelor of Science in Survey Engineering
 Ferris State University, Big Rapids, MI
 May 1999

Associate Degree in Surveying Technology
 Ferris State University, Big Rapids, MI
 December 1999

Licenses & Certifications

PE – Professional Engineer

Licensed by the State of Colorado – Number PE.0063949

Licensed by the State of Indiana – Number PE11700544

Licensed by the State of Iowa – Number P28694

Licensed by the State of Kentucky – Number 37386

Licensed by the State of Michigan – Number 52588

Licensed by the State of Minnesota – Number 55295

Licensed by the State of Ohio – Number 82578

Licensed by the State of Wisconsin – Number 45773 - 6

PS – Professional Surveyor

Licensed by the State of Michigan – Number 50431

RRC – Registered Roof Consultant

Certified by IIBEC, Inc. – Registration Number 0768

RRO – Registered Roof Observer

Certified by IIBEC, Inc. – Registration Number 1754

REWC – Registered Exterior Wall Consultant

Certified by IIBEC, Inc. – Registration Number 0161

Residential Licensed Builder

Licensed by the State of Michigan - Number 2101157611

Storm Water Management Operator (Not Current)

Licensed by the State of Michigan - Number C- 14323

Certified Roof Inspector – Residential (2009-2014)

Certified by HAAG Engineering – HCRI-R

Employment History

Senior Forensic Engineer

Nederveld, Inc.

2007 – Present

Perform forensic analysis relating to building pathology issues, fire loss damage, structural damage from vehicle impacts, storm damage (wind, snow, hail), water loss events, site grading, site utilities, and asphalt pavement failures.

Project Engineer

Nederveld Inc., Grand Rapids, MI

2001 – 2007

Responsibilities include project management, overseeing and completing site design, road design, site grading, culverts, sanitary sewer systems, water mains and storm sewers.

Survey Party Chief

Lapham Associates, Mt. Pleasant, MI

1999 – 2001

Duties included serving as the survey party chief on boundary surveys, ALTA surveys, subdivisions, site condominiums, topographic surveys, elevation surveys, mortgage reports and a variety of construction staking projects, including MDOT contractor stakings.

Licensed Builder

DeRose Builders, Muskegon, MI

1988 – 2001

Managed extensive new construction and remodeling projects.

Survey Technician

Prein and Newhof, Kalamazoo, MI

1998 – 1998

Performed calculations on boundary surveys, managed data collection on topographic surveys, participated in extensive construction stakeouts, researched job information, and wrote legal descriptions.

Instrument Operator

Gove Associates, Kalamazoo, MI

1997 – 1997

Responsibilities included data collection and running total station on boundary surveys, ALTA surveys, topographic surveys, mortgage reports, and construction staking.

Professional Affiliations

Member: American Society of Civil Engineers (ASCE)

Member: International Institute of Building Enclosure Consultants (IIBEC)

Member: Roofing Industry Committee on Weather Issues (RICOWI)

Expert Witness Experience

Courtroom Testimony

February 2025

Arbanas vs Humphries

Expert Witness for Lewis, Reed & Allen on behalf of Todd Arbanas

Kalamazoo County Circuit Court #2024-0007-CH

May 2024

Schneider vs Kelley

Expert Witness for Best, Heyns & Schroeder, PC
Lenawee County Circuit Court #21-6614-NZ

December 2023

Kimberly A. Harper vs Farington Heights Condominium Association, Gary Rahn, Warner Lewis, and Don Disselkoen
Expert Witness for Secrest Wardle
Ottawa County Circuit Court #19-5929-CH

January 2023

Coan & Plant vs Ercolani
Evidentiary Hearing
Expert Witness for Soble Rowe Krichbaum LLP and Johnston, Szykiel, Hunt, Fraser, Gold and Barron, PC
Livingston County Circuit Court #2020-307YONZ

November 2022

Wolfenbarger vs Frank Wright, Jr.
Expert Witness for DeLoof, Dever, Wright, and Millam
Monroe County Circuit Court #15-137561-NZ

October 2022

Coan & Plant vs Ercolani
Expert Witness for Soble Rowe Krichbaum LLP and Johnston, Szykiel, Hunt, Fraser, Gold and Barron, PC
Livingston County Circuit Court #2020-307YONZ.

March 2020

Consumers Energy Company vs Do It Right Cable, Inc.
Expert Witness for Willingham & Cote PC on behalf of Farm Bureau General Insurance
Eaton County Circuit Court #19-01012GCE

May 2019

Wolfenbarger vs Frank Wright, Jr
Evidentiary Hearing
Expert Witness for DeLoof, Dever, Wright, and Milliman on behalf of Frank Wright, Jr
Monroe County Circuit Court #15-137561-NZ

November 2018

Jed and Linda McCrumb vs Michael and Kelly Felton
Expert Witness for Lewis, Reed & Allen on behalf of Jed and Linda McCrumb
Kalamazoo County Circuit Court #2017 CH

June 2018

Larry Bussell vs Farm Bureau General Insurance Company of Michigan
Expert Witness for Yeager, Davison & Day PC on behalf of Farm Bureau General Insurance Company of Michigan
Ionia County District Court #17-0644-GC

March 2018

Wolfenbarger vs Frank Wright, Jr
Expert Witness for DeLoof, Dever, Wright, and Milliman on behalf of Frank Wright, Jr
Monroe County Circuit Court #15-137561-NZ

August 2017

Swick TV and Appliance, Inc. vs Auto-Owners Insurance, Inc.
Expert Witness for Auto-Owners Insurance, Inc. on behalf of Plunkett Cooney PC
Branch County 3A District Court File #16-0315-GC

September 2016

Church vs Johnson Grain Farms et al
Expert Witness for Johnson Grain Farms on behalf of Jonathan Shove Damon
Newaygo County #15-20108-NI

March 2015

Bradley Solarek and Karen Solarek vs William Tressel and Jill Tressel and Pierson-Gibbs
Homes, Inc. and Wegeler Concrete and Excavating
Expert Witness for The Hanover Law Group and Law Offices of Catherine Gofrank
Kalamazoo County Circuit Court Case #13-0376-CZ

Arbitration/Mediation

September 2023

Incore Restoration Group, LLC vs Two2One LLC
Expert Witness for Johnston, Szykiel, Hunt, Fraser, Gold and Barron, P.C.
Hillsdale County Circuit Court #2020-031-CH

December 2015

Sarah Perry vs G.A. Frisch, Inc.
Expert Witness for Sarah Perry
Arbitration Case Number 01-15-0004-7539

April 2012

Jason and Nancy Park vs State Farm Insurance
Expert Witness for State Farm Insurance on behalf of Sudekum Cassidy & Shulruff
Arbitration Number 21037AMN

January 2012

Robert and Doreen Adams vs State Farm Insurance
Expert Witness for State Farm Insurance on behalf of Sudekum Cassidy & Shulruff
Arbitration Number 20368AMN

December 2011

Zygmunt, Wladyslawa, Bernadette Stopa vs State Farm Insurance
Expert Witness for State Farm Insurance on behalf of Sudekum Cassidy & Shulruff
Arbitration Number 20685AMN

October 2011

Jeffrey Evans vs State Farm Insurance
Expert Witness for State Farm Insurance on behalf of Sudekum Cassidy & Shulruff
Arbitration Number 20281AMN

September 2011

Hawkins Townhouse Condominium Association vs State Farm Insurance
Expert Witness for State Farm Insurance on behalf of Sudekum Cassidy & Shulruff
Arbitration Number 20016AMN

May 2011

Fiore Desimone vs State Farm Insurance

Expert Witness for State Farm Insurance on behalf of Sudekum Cassidy & Shulruff
Arbitration Number 19323AMN

November 2010

Henry and Betty Wang vs State Farm Insurance
Expert Witness for State Farm Insurance on behalf of Sudekum Cassidy & Shulruff
Arbitration Number 17227AMN

April 2010

Ronald Gustavson vs State Farm Insurance
Expert Witness for State Farm Insurance on behalf of Sudekum Cassidy & Shulruff
Arbitration Number 15674AMN

September 2008

Douglas Lakefront Properties LLC vs City of the Village of Douglas
Expert Witness for Douglas Lakefront Properties LLC on behalf of Miller Canfield Paddock & Stone
Allegan County Circuit Court #08-42855-CZ

Depositions

April 2025

Thomas Williams, John Gallagher Jr. and Darcy Ottaway vs M & F Development, LLC, a Michigan Limited Liability Company
Expert Witness for Johnson, Szykiel, Hunt, Fraser, Gold, and Barron, PC,
State of Michigan, In the Circuit Court of the County of Genesee, Case No. 2022-117020-CH

January 2025

Satori Corporation vs DLB Equities, LLC
Expert for DLB Equities, LLC on behalf of Sullivan, Ward, Patton, Gleeson & Felty, P.C.
State of Michigan, In the Circuit Court for the County of Genesee, Case No. 2023-120056-NCZ

December 2024

North Cypress Fitness Studio, LLC vs National Casualty Company
Expert for Mouldedoux, Bland, Legrand & Brackett, LLC
District Court for Eastern District of Louisiana, Civil Action No. 2-23-cv-01760

December 2024

Christopher Smith vs Charles M. Foster and Debra E. Foster
Expert for Herbert Machnik Law Firm
Kalamazoo County Circuit Court, Case No. 2024-0220-CH

May 2024

All Weather Seal of West Michigan, Inc vs Briggs
Expert Witness for Rhoades Mckee, PC
Muskegon County Circuit Court #23-002068-CZ

March 2024

Nantucket Landing South Condominium Association, Inc vs State Farm Casualty Company
Expert for Gallagher, Gams, Tallan, Barners & Littrell, LLP
District Court Southern District or Ohio Western Division #3:23-cv-00161

February 2023

Brian Thomas Dailey vs Citizens Insurance Company of the Midwest
Expert Witness for Citizens Insurance Company of the Midwest on behalf of Vandevveer
Garzia, PC
Wayne County Circuit Court Case No: 21-017065-CK

October 2022

Estate of Martin Potter vs Central Lake Properties
Expert Witness for Ven Johnson Law, PLC
Antrim County Circuit Court #21-9252-NI

July 2021

Coan & Plant vs Ercolani, Expert Witness on Behalf of Mathew Krichbaum
Livingston County Circuit Court Case #2020-307YONZ

May 2020

Farm Bureau Mutual Insurance of Michigan, as subrogee of Michael Zizak vs Paul
Whiteman Construction, LLC, Expert Witness for Farm Bureau Insurance
State of Michigan, 14th Circuit Court for the County of Muskegon, Case No. 20-194-CK

July 2017

Farm Bureau General Insurance Company of Michigan a/s/o Erwin Orchardlands, Inc vs
Kearns Brothers, Inc (defendant and third-party plaintiff) vs Finnigan Construction, Inc
(third-party defendant)
Expert Witness for Finnigan Construction, Inc on behalf of Avery Law
Oakland County Circuit Court #2016-152541-CB

September 2016

Thomas Benaglio and Lynne Johnson vs Farmers Insurance Exchange
Expert Witness for Farmers Insurance Exchange on behalf of Hans H J Pijls
Oakland Circuit Court #15-150390-CK

March 2016

Church vs Johnson Grain Farms et al
Expert Witness for Johnson Grain Farms on behalf of Jonathan Shove Damon
Newaygo County #15-20108-NI

March 2016

Terry and Marla Wolfenbarger vs Frank Wright and Steven Lewis
Expert Witness for Steven Lewis on behalf of The Hanover Law Group
Monroe County Circuit Court #15-137561-NZ

March 2015

Zachary and Andrea Scott vs City of East Grand Rapids
Expert Witness for City of East Grand Rapids on behalf of Law Offices of Catherine Gofrank
Kent County Circuit Court #14-03015-CZ

March 2014

Marysville Manor Condominium Association vs Home-Owners Insurance Company
Expert Witness for Home-Owners Insurance Company on behalf of Gregory and Meyer PC
St. Clair County Circuit Court #13-002148-CZ

April 2012

Liberty Insurance Corp. vs Madhava Patel and Rekha Patel

Expert Witness for Liberty Insurance Corp. on behalf of Williams Montgomery and John, Ltd.

Cook County Circuit Court #12 L 321B

August 2011

Auto-Owners a/s/o McIntyre vs Springsteen Water Conditioning LLC

Expert Witness for Auto-Owners Insurance on behalf of Reisinger Law Firm PLLC

Lapeer County Circuit Court #10-043053-NP(H)

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