

Contact

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Toronto, Ontario

Academic Background

Graduate Diploma

Rehabilitation of Civil

Engineering Structures

McMaster University,

Hamilton, Ontario

2006

Diplomirani Inzenjer (Master
in Civil Engineering
equivalent)

Department of Structures,

Faculty of Civil Engineering,

University of Belgrade,

Belgrade, Serbia

1988

Sasa Dzekic, M.Eng., P.Eng.

Practice Lead, Civil/Structural

Mr. Sasa Dzekic, M.Eng., P.Eng., is a designated consulting engineer with over 35 years of professional experience in civil/structural engineering, including 30 years in forensic engineering. He specializes in the investigation and assessment of failures or underperformance of structural systems, building envelope, and/or their components.

Mr. Dzekic has assumed responsibility for structural design and field review during construction for a wide range of projects. He has performed evaluations of the extent of structural damage, planning and on-site advice concerning unsafe building conditions and demolition, including temporary measures for the structural securing of buildings, and preparation of the scope of required remediation. He has conducted investigative engineering evaluations, produced reports, and provided expert testimony as required, for insurance and legal matters, including numerous large/complex losses.

Primary Areas of Consulting

Civil/Structural Forensic Engineering

- Structural damage due to fire, explosion, weather events (wind, snow, rain, ice), water leakage, vehicle and tree impacts
- Structural failure of buildings and structural systems, and/or their components
- Failures of foundation and retaining walls, drainage systems, pools and other buried structures
- Construction vibration claims
- Evaluation of commercial, residential, industrial, institutional (including schools, churches, hospitals), farm/agricultural buildings (including pole barns, greenhouses, silos), and designated structures
- Historical buildings and structural systems
- Structural material evaluation (including concrete, masonry, wood, steel, and aluminum)
- Temporary measures for structural securing of unsafe structures
- Demolition plan preparation, general review of demolition
- Scope of reconstruction, field review during construction

Building Science

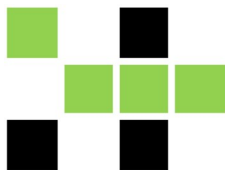
- Failure or underperformance of structural and building envelope systems

Construction Defects Evaluation

- Assessment of the design, materials, construction and maintenance aspects and their impacts on a loss
- Evaluation of the building code requirements and deficiencies
- The standard of care evaluation

Personal Injury Incidents

- Slip and fall
- Glass doors and windows
- Aluminum ladders



Professional Licensure

Professional Engineers Ontario,
Consulting Engineer Designation
1997 - Present

Association of Professional Engineers
& Geoscientists of Alberta
2021 - Present

Professional Engineers &
Geoscientists of British Columbia
2021 - Present

Certifications

Haag Certified Inspector
Residential (HCI-R), Haag
Education
2022

Qualified Designer under the
Ontario Building Code
(Building Structural), Ministry of
Municipal Affairs and Housing
2006

Engineered Masonry Design
Course Graduate, McMaster
University and Ontario Masonry
Contractors' Association
1999

Health and Safety Training -
Applicable courses required
under the Occupational
Health and Safety Act and
Regulations
1997 - Present

Employment Background

Mitigateway, Toronto, Ontario

Civil/ Structural Expert (Contract Part-time)

2025 - Present

- Review and analysis of civil/structural and building science claim history, to assist insurance clients in evaluation of causation, mitigation, risk prevention and recovery.

Diact Inc., Toronto, Ontario

Practice Lead, Civil/ Structural

2024 - Present

- Established and leads the civil/structural division, conducting and overseeing a range of forensic engineering investigations. Tasks include evaluating structural damage, determining the causes of failures or underperformance, and preparation of remediation and loss mitigation strategies.

Haag Canada Inc., Toronto, Ontario

Practice Lead, Civil/ Structural

2020 - 2024

- Responsible for coordinating efforts of civil/structural group and conducting investigations on single and multi-faceted forensic engineering matters. Assignments involved the assessment of structural damage, causation of failure or underperformance, remediation, and loss mitigation.

Director of Forensic Engineering

2022 - 2023

- Led and coordinated a multi-disciplinary team of forensic engineering experts. Responsible for conducting structural investigations and assessments performed for the insurance and legal industries, and other consulting companies.

JNE Consulting Ltd., Hamilton, Ontario

Discipline Manager - Forensic / Senior Structural Engineer

2012 - 2020

- Coordinated efforts of an engineering team in investigation of structural failures, and evaluation of buildings, including preparation of reports, and preparation of drawings for the purpose of assessing the cost of the required structural reconstruction, and for the building permit purposes. General review during construction, communication with contractors, homeowners, architects, engineers and other building professionals, and preparation of reports.



Southward Consultants Limited, Burlington, Ontario

Structural Engineer

1997 - 2012

- Involved in investigation and assessment of failures of buildings and structural systems, and/or their components, and structures damaged by fire, explosion, water leakage, impact, vibration, etc., and preparation of reports. Investigation of building science problems.
- Computer finite element analysis of two and three dimensional framed and plate structures using Stardyne. Structural analysis and design of concrete, steel, wood and masonry structures, utilizing engineering programs (STAAD, RISA, WoodWorks, Masonry Design Software). Drawing and modeling using AutoCAD.

Structural Designer

1995 - 1997

- Computer modeling and animation of structural collapses using AutoCad and 3D Studio. Participated in the forensic investigation and assessment of failures of buildings or their components, preparation of accident reports and photographic records, and structural analysis and design.

Invest-Biro, Belgrade, Serbia

Structural Engineer

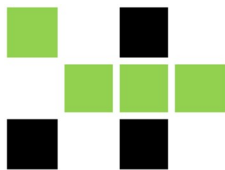
1989 - 1995

- Structural analysis, design and field review during construction. Responsible for a variety of projects from inception to completion. Prepared project plans and specifications.

Notable Projects

Forensic Engineering

- Fire and explosion damage – over 900 residential, commercial, industrial, institutional and farm buildings
- Collapses of concrete, masonry, steel and wood framed structures, including:
 - Champlain Towers South in Surfside, FL
 - Mall Roof in Elliot Lake, ON
 - Concert Stage in Toronto, ON
 - Parking Garage Roofs in Mississauga and Kitchener, ON
 - Public Arena in New Brunswick
 - Numerous other residential, commercial, industrial, institutional and farm structures
- Structural damage due to wind - over 200 claims involving residential, commercial, industrial, institutional and farm buildings, including:
 - Tornado damage to grain elevator, salt storage, office building and commercial/residential buildings in Goderich, ON
 - Tornado damage to greenhouses in Leamington, ON



- Wind damage to highrise apartment building and commercial building in Hamilton, ON
 - Wind damage to numerous pole barns and silos
- Collapses of steel racking systems in Brampton, Vaughan and Hamilton, ON
- Structural impact damage (vehicles, trees, cranes) - numerous residential, commercial, industrial and institutional buildings, and bridges
- Structural concerns associated with vibrations (traffic, construction, blasting), numerous investigations including vibration measurements, analysis and assessment of their impact on structures
- Crane failures in Hamilton, Nanticoke, ON
- Several storage tank and silo failures

Structural Design

- Residential
 - Residential developments Sava in Obrenovac, Serbia and Megdan in Uzice, Serbia
 - Several highrise condominiums in Belgrade, Serbia, and Moscow, Russia
 - Numerous new, rehabilitation, renovation and addition projects in Belgrade, Uzice and Obrenovac, Serbia
- Commercial
 - Renovation and addition to Apollo Commercial Centre in Novi Sad, Serbia
 - Sport Centre (Phase II) in Perm, Russia
 - Renovation and addition to Bank Zaria in Perm, Russia
 - Restaurant at tourist resort Dzerzinski in Sochi, Russia
 - Car Park Sosnovaya Rosca in Yalta, Ukraine
- Industrial
 - Intex plant in Indjija, Serbia
 - Renovation and addition at Motel and Gas Station Asprom in Belgrade, Serbia
- Oil and Gas
 - Structural modelling and review of steel tanks in Fort McMurray, Alberta

Professional Development

Numerous professional industry courses, seminars and webinars on structural, building science and professional engineering ethics, leadership and management, as reported through professional associations' Continuing Professional Development programs. Typical examples of continuing professional development are:

- Professional Practice Guidelines: Use of Artificial Intelligence in Professional Practice, EGBC (2025)
- Major Engineering Projects: Current Practices, Challenges, and Game Changers, EGBC (2025)
- The Science of Storm Analysis, Haag Education (2024)
- The Bridge That Crossed the Atlantic, CSCE (2024)



- 70 Years of Precast Concrete Knowledge, PCI (2024)
- Adhesion of Bonded Single-Ply Roofing Membranes, Haag Education (2023)
- Forensic Engineering Seminar 2022, National Academy of Forensic Engineers (2022)
- Investigating the Interaction Between Tornadoes and Structures, Haag Education (2022)
- Wind vs. Wave Damage Assessment, Haag Education (2022)
- 14th Canadian Masonry Symposium (2021)
- Roof Damage Assessment, Haag Education (2021)
- Steel Design and Detail Issues, AISC Conference (2020)
- Petrographic Analysis of Concrete Deterioration, ASCE (2019)
- Conservation of Heritage Structures, PJ Materials Consultants (2019)
- Structural Design of Mass Timber, AIA CES (2018)
- Snow Loading for Non-Standard Roofs, ASCE (2018)
- Design Snow Loads for Complex Roofs, ASCE (2017)
- Cold-weather Concrete: Guide Updates, and Research on Placement and Early-Age Behavior, ACI (2017)
- Anchoring, Post Installed Rebar Design, NCSEA (2016)
- Mid-Rise Construction, Canadian Wood Council (2015)
- Performance-Based Requirements, Specification and Testing for Concrete and Sustainability, ACI (2015)
- Bolting and Welding for Design Engineers, CISC (2007)
- Modern Concrete, Dalhousie University (2002)

Technical Presentations

- *"Forensic Investigations of Structural Failures"*. Presented as part of Course MSE 431S/1031S - Forensic Engineering, University of Toronto, March 2023, April 2024
- *"Wind Effects on Structures – Large Loss Series"*. Approved Course by Registered Insurance Brokers of Ontario, Alberta Insurance Council, Insurance Council of British Columbia, and Insurance Councils of Saskatchewan, February 2023
- *"Collapse of Champlain Towers South, Florida - June 24, 2021"*. Presented as part of Course MSE 431/1031 - Forensic Engineering, University of Toronto, April 2022

Publications

- *"Preventing the Next Collapse"*, Canadian Underwriter, December 2021/January 2022, pp.39-40
- Southward, R.E., Dzekic, S., *"Unbalanced Snow Loading and the Structural Integrity of Circular Arched Roofs"*, American Society of Civil Engineers, Practice Periodical on Structural Design and Construction, November 2005, pp. 209-216