

Joseph P. Jaracz, P.E., S.E.

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Civil/Structural Engineer with over 20 years of experience working on diverse projects of all sizes, with an emphasis on structural analysis and construction safety. His structural evaluations have allowed him to determine and predict causes of failure, as well as to make recommendations for corrective measures. This experience provides a solid basis for forensic investigations. The breadth of Mr. Jaracz's engineering projects includes heavy industrial and power facilities, large concrete structures, mass concrete, piled foundations, heavy structural steel, light gage steel, masonry, wood structures and sitework. He is experienced in complex engineering solutions, establishing design criteria, specifications, finite element analysis, scope development, proposals, multidiscipline coordination, directing staff of engineers and drafters.

Mr. Jaracz holds professional engineering licenses in California, Florida, New York, Pennsylvania, Virginia, and Washington.

PROFESSIONAL EXPERIENCE

Forensic Engineering Experience

Mr. Jaracz's structural experience gives him a solid foundation upon which to base forensic investigations. He is also able to provide recommendations for corrective measures when necessary. His recent forensic engineering experience includes:

Structural evaluation of several structures, including residences, storefronts, and other buildings which were struck by vehicles, including recommendations for the necessity of structural and non-structural repairs

Numerous structural evaluations and inspections following the November 2014 snow storm, including recommendations for repairs

Independent peer review of report regarding Building Code issues

Investigation to determine cause of suspected foundation issue and sagging floors in residence

Engineering evaluation to determine the circumstances related to basement wall damage in a residential structure

Origin and cause investigation in barn collapse case

Investigation of fire damage to masonry basement / foundation

Inspection and evaluation of seismic bracing at a federal embassy facility to determine deficiencies and recommend upgrades

Inspection and evaluation of structural adequacy of existing two-story building in preparation for extensive renovations

Site inspection of existing crane support structure to evaluate for a proposed two ton increase in crane capacity, including evaluation of existing roof beams

Reviewed conditions of slurry containment structure to evaluate movement and rotation, followed by design of and field support for reinforcement of the structure

RJR Engineering, P.C. 2009 – Present
Structural Engineer, P.E.

Responsible for project management and supervising structural department. Performs structural evaluations of process facilities in support of nuclear decommissioning activities. Evaluations include existing crane structure analyses, analyses for floor loading during high load movements, analyses for facility structural modifications and seismic analyses. Prepare and check calculations, specifications, general arrangements, construction drawings, estimates, budgets, schedule, and deliverables.

Experienced with solving complex problems, investigating unique load paths, geotechnical investigations, analysis software, and forensic evaluations.

Engineering designs include large concrete structures, foundations, heavy structural steel, masonry, light gage steel, wood structures, pavements, storm drainage, and sitework, as well as designs completed in accordance with Nuclear Quality Assurance-Level 1 Standards (NQA-1).

ATSI, Inc. 2007 – 2009
Principal Engineer, Civil / Structural P.E.

Worked on diverse projects of all sizes. Responsible for projects with civil/structural engineering fees from \$5K to \$2M (30,000 man-hours). Responsible for directing project civil/structural staff as large as 20 team members. Directed all design concepts, calculations, specifications, and drawings.

Worked with clients and was responsible for estimates, budgets, schedule, and deliverables. Experienced in solving complex problems, establishing design criteria, specifications, unique load paths, geotechnical investigations, finite element analysis, proposals, scope development, multidiscipline coordination and direction to staff.

Breadth of engineering designs included mass concrete structures, deep foundations (100 foot piles), heavy structural steel, masonry, light gage steel, wood structures, pavements, and sitework.

Project types included blast furnace facilities, forging machine foundations, power generation plants, electrical substations and vaults, material handling, pressure vessels, and general industrial.

Arranged for an internal webinar on "NYS Laws for Professional Engineers" through a NYS approved provider for engineering staff. NYS continued education credits were awarded to PE participants.

ATSI, Inc. 2005 – 2007
Senior Staff Engineer, Civil / Structural P.E.

Given lead role on Civil and Structural projects. Developed conceptual designs as well as final calculations. Delegated, checked and coordinated design work within the team. Developed design criteria and specifications.

All designs performed in accordance with all applicable codes. Engineering software, spreadsheets, and hand calculations were done following either ASD or LRFD as required. Reviewing Shop drawings and submittals for compliance with project specifications and requirements.

Gained familiarity with the ASME Pressure Vessel Code and Association of Iron and Steel Engineer (AISE) Technical Reports.

Projects included grading and drainage, foundations, pits, pipe/utility supports, structural modules, monorails, pressure vessels, pavements, building additions/modifications, and residential construction. Typical civil/structural engineering fees ranged from \$5K to \$200K.

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Unique designs include horizontal life lines (fall protection), rigging devices, steel at elevated temperatures above 600 degrees Fahrenheit, 20 foot diameter brine storage tank within another existing tank, support system for a pre-fabricated building elevated 50+ feet overtop an existing building requiring reinforcement/replacement of the existing building steel, and components of a 3-story 10,000sf home residence.

**Hatch Acres Corp 1999 – 2005
Civil Engineer P.E.**

Produced designs compliant with all governing codes, rules and regulations. Included codes are; NYS, IBC, IRC, UBC, BOCA, AISC, AIC, ASTM, AWS, NDS, ASCE, IEEE, ANSI, NFPA, OSHA, ADA.

Notable accomplishments include complete structural design of 3 hydro plants built within the confines of locks along the White River in Arkansas (designed for overtopping and 85 feet of water head), all sitework and steel embedment design for several GE combustion turbine installations, and a 69-kV substation take-off structure design along with all sitework for a Central Main Power substation.

Other engineering accomplishments include design check of a single lane (H-15 truck load) access bridge in accordance with AASHTO (50' & 100' spans), Bethlehem Steel chemical truck unloading addition design, NYPA switchyard modifications at Messena, Field Engineer for NYSEG Binghamton Service Center grouting program, Max Starke Dam rehabilitation, NYPA Construction Annex Project at Messena, NF Aquafalls Project, Alco Dam/Plant inspection and stability evaluation, foundations and sitework for NYPA's maintenance facility expansion and office/crew building at Messena, NYPA's 69-ton runner display foundation in Lewiston, NYPA's four water level gauge stations along the Niagara River, and concrete penstock inspection at Clarkson University.

**Hatch Acres Corp. 1990 – 1999
Civil Technician**

Projects included the Canon del Pato 150-MW hydro facility in Peru, South America, with new intakes-gates-conveyance/tunnels-powerhouse-and supporting structures (100dwgs), Depew Schools renovations (25dwgs), Waterloo hydro facility canal wall rehabilitation (25 dwgs), Maid of the Mist access shaft/retail feasibility studies (10dwgs), Dresser-Rand condenser pit construction (25dwgs), Hudson Fall hydro facility (150dwgs), and South Glen Falls hydro facility (150dwgs).

**Hatch Acres Corp. 1988 – 1990
Civil Draftsman**

Worked on contract packages for bridge piers, abutments, roadways, and expansion details on several NYSDOT projects. Also worked on other general projects such as 2-acre chemical plant sitework and foundations, Small Boat Harbor dock rebuild with steel piles and walkways, 32-acres land fill in Florence NJ with all necessary drawings for grading/steel/foundations, all details for 1600lf dam rehabilitation with a new 8-MW hydro station at the NYS Dam Project on the Mohawk River, and miscellaneous others

**National Bridge Co., Inc., Buffalo, NY November 1985-April 1988
Draftsman**

Gained valuable experience in a fabrication shop, seeing daily activities, and performing some QA inspections on fabrications. Performed manual drafting and trigonometric calculations for bridge expansion joints and bridge bearings, based on contract drawing sets issued by authority having jurisdiction. Also developed supporting bill of materials and quantity take-offs.

Included were projects for the NYSDOT, NYS Thruway Authority, and various counties. One notable project included the reconstruction of the I-190 to downtown Buffalo, New York.

EDUCATION

Bachelor of Science, Civil Engineering, New York State University at Buffalo, Amherst
New York, 1999

Associate of Applied Science in Architectural Technology, Erie Community College
State University of New York, Orchard Park, New York, 1988

AFFILIATIONS

Member - American Institute of Steel Construction (AISC)
Member - American Concrete Institute (ACI)
Member - American Society of Civil Engineering (ASCE)
Member - Structural Engineering Institute (SEI)

CERTIFICATIONS / TRAINING

OSHA – 10 Hour Occupational Safety and Health Training Course, Construction Safety
and Health
Lock Out / Tag Out, Carbon Monoxide Safety, Fall Protection, and Personal Protective
Equipment
Investigation and Repair of Fire-Damaged Framing
Seismic Evaluation and Retrofit of Existing Buildings ACEC New York
Seismic Design with ASCE 7-10
Providing Safety with FEMA 361: Community Storm Shelters LU/HSW/SD
The Science of Corrosion
Legal issues for New York Professional Engineers
Structural Integrity Requirements for Concrete Buildings
Seismic Design of Wood Framed Construction, CRS, code: ONL-SWFS
2010 New York State Codes – Significant Changes
Code of Ethics for Engineers, L-1001
NYS Laws & Rules for PE's & LS's
Structure Failures that Changed Engineering and Architecture
Uniform Fire Prevention & Building Code Education Program