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CURRICULUM VITAE OF NICK R. HARVEY, P.E.

May 2024

I. General Information

A. Position

Senior Civil/Structural Engineer
Semke Forensic
154 Hughes Lane
St. Charles, Missouri
Telephone: 636-896-9995

II. Professional Summary

A. Education:

Master of Science
Civil Engineering
University of Missouri
Columbia, Missouri
2008

Bachelor of Science - Summa Cum Laude
Civil Engineering
Mathematics Minor
Honors College
University of Missouri
Columbia, Missouri
2007

New Franklin R-1 High School
New Franklin, Missouri
Valedictorian
2003

B. Experience:

January 2023 to Present
Position: Senior Civil/Structural Engineer
Semke Forensic
154 Hughes Lane
St. Charles, Missouri

Conduct forensic investigations and technical research of complex civil engineering systems including structural failure, design and construction defects, transportation infrastructure, roofing materials and installation, pedestrian accidents (slip and fall/ADA), OSHA standards, and subsurface utilities. Thoroughly investigate the facts and render unwavering professional opinions as to the cause of reported failures and accidents. Provide expert witness testimony at depositions and trials for both plaintiff and defendant cases. Develop a general scope of repairs as required to return property/facilities to pre-loss condition.

January 2021 to January 2023
Position: Senior Structural Engineer
Vestal Corporation
St. Louis, Missouri

Lead structural design engineer for multidisciplinary projects. Prepared construction drawings and specifications for structural steel, reinforced concrete, and cold-formed steel. Liaison with mechanical, electrical, and plumbing design disciplines and clients. Determined construction quantities and prepared cost estimates. Reviewed contractors' submittals and Requests for Information (RFls) during construction. Conducted pre-design field investigations and construction inspections. Projects included:

Don Julio Tequila El Charcon expansion West Central Mexico - 2021-2022
Application of International Building Code standards in a geographic region not supported by American Society of Civil Engineers wind and seismic data maps. At its completion, the expansion will increase the El Charcon tequila production capacity by approximately 70,000 lpd (liters per day). The three primary new structures cover approximately 9,650 m^2 (103,000+ sq. ft).

Ardagh Can Plant - Winston-Salem, NC - 2021
Renovation/Addition of 460,000+ sq. ft. facility comprised of tilt-up, pre-cast/reinforced-concrete panels with a steel-braced frame interior, covered with bar joists and metal decking. The total project required multiple penetrations in/alterations to the existing precast panels ranging in size from 24-inch diameter, up to removal of the bottom one third of

multiple panels while supporting the upper portion in place. Steel bar joists were analyzed for capacity to support additional mechanical equipment, both roof-mounted and suspended.

February 2020 to January 2021
Position: Project Engineer
Kreher Engineering, Inc.
Columbia, Illinois

Structural design for commercial, residential, and institutional projects of varying size and complexity. Designs included steel, reinforced-concrete foundations, elevated slabs, beam slabs, composite slabs, wood, and masonry. Work included repairs of existing structures damaged by wind, flood, pipe burst, and galvanic corrosion to structural steel.

December 2018 to February 2020 (Part Time)
Position: Project Engineer/Owner
Harvey Consulting
St. Louis, Missouri

Conducted inspections of residential structures. Documented structural and building code deficiencies. Designed modifications and alterations to repair deficiencies for code compliance including No-Rise Certificate for structures in floodways. Prepared construction plans for contractor bids and approval/permits to be issued by Authorities Having Jurisdiction (AHJ) including State of Missouri, St. Louis, St. Charles, and Lincoln Counties, and multiple municipalities within the St. Louis Metro Area.

February 2013 to September 2014
Position: Project Engineer
Department of Veterans Affairs
St. Louis, Missouri

Responsible for project engineering and contract administration of varied renovation design/construction projects. Multifaceted scopes of projects included structural, HVAC, plumbing, electrical, telecom, and general construction to ensure compliance with healthcare facility codes and requirements. Contract administration responsibilities included management of design engineering firm, project/capital asset budgets, construction schedule/phasing, general contractor compliance, and quality assurance inspections and final acceptance of the project.

May 2012 to October 2012 (Temporary Deployment)
Position: Project Engineer
U.S. Army Corps of Engineers
Afghanistan Engineer District - South

Responsible for contract administration of multiple infrastructure projects for the Afghan government including new construction of regional military base, district logistics center, national police training academy, regional hospital, and airport taxiway pavement. Duties included management of design engineering firm, project/capital asset budgets, construction schedule/phasing, general contractor compliance, and quality assurance inspections and final acceptance of the project. Day-to-day inspection responsibilities required travel from Forward Operating Base to unsecured construction project sites located in combat zone, escorted by a security liaison team of 12 armed guards transported via up-armored SUV caravan and/or rotary wing support.

February 2009 to February 2013
Position: Project Engineer/Manager
U.S. Army Corps of Engineers
Whiteman Air Force Base

Responsible for project engineering and contract administration for construction of the Explosive Ordnance Disposal Operations Complex and structural upgrades to the B-2 Aircraft Maintenance Docks. Duties included management of design engineering firm, project/capital asset budgets, construction schedule/phasing, general contractor compliance, and quality assurance inspections and final acceptance of the project.

August 2007 to February 2009
Position: Master's Program
University of Missouri
Blast Effects Research

Conducted blast testing for various United States government departments including the Army Corps of Engineers and Air Force Research Laboratories. Fabricated full-scale models including welding, machining, concrete formwork, and placement. Setup and monitoring of laboratory hardware and software including Micro-Measurement Strain Gages, computer controlled hydraulic actuators, and vacuum chamber. Blast testing was equivalent to explosive magnitude equivalent of 1,000 pounds of TNT. Prepared reports of findings and delivered in-person briefings to government officials.

III. Seminars and Technical Courses Instructed

2009-2013 - Mentored U.S. Army Corps of Engineers' office personnel and field staff with Resident Management System (RMS) issues. Instructed Quality Control System (QCS) training classes for contractors.

IV. Awards

2012 - Secretary of Defense Medal for the Global War on Terrorism
2012 - Department of the Army - Achievement Medal for Civilian Service
2012 - Commander's Coin for Outstanding Performance - Value Engineering Proposal
2007/2008 - National Research Fellowship Program - Honorable Mention

V. Professional Affiliations

Missouri Structural Assessment and Visual Evaluation (SAVE) Coalition
American Society of Civil Engineers (ASCE)
American Institute of Steel Constructors (AISC)
The Masonry Society (TMS)
Society of American Military Engineers (SAME)
Mizzou Engineering Alumni Organization - Board of Directors - Out-State Director 2008-2010

VI. Professional Registration

Registered Professional Engineer in the States of Arkansas, Illinois, Iowa, Kansas, Kentucky, and Missouri