ENGINEER: CIVIL/STRUCTURAL

DESIGN AND CONSTRUCTION INVESTIGATIONS - CAUSATION

#### KEVIN L. KIRCHMER, P.E.

Engineering Design & Testing Corp.

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Overland Park, Kansas 66204 Telephone: (913) 859-9580 kkirchmer@edtkc.com

# **EDUCATION:**

1993 Bachelor of Science, Civil Engineering

The University of Kansas, Lawrence, Kansas

## **EXPERIENCE:**

2001 to Present

# Engineering Design & Testing Corp., Overland Park, Kansas

Consulting Engineer. For residential, commercial and industrial structures: assessment, appraisal and umpiring services for scope of hail and/or wind damage to roof coverings; scope of structural damage due to tornado, fire, blasting, explosions, vehicle impacts, tree impacts, hurricanes; cause of moisture intrusions through roof coverings, exterior veneers, windows and foundations; scope of foundation damage due to involuntary discharges of water, settlement, ground subsidence; evaluation of construction defects and building code compliance; evaluation of failures in concrete foundations, driveways and sidewalks; depositions, trial testimony and subrogation support; cost estimates; value of loss; laboratory and field testing of construction materials; damage segregation; retaining wall failures.

1993 to 2001

# Black & Veatch, Overland Park, Kansas

Design Engineer. Analysis and design of concrete foundations for industrial structures and equipment, determination of wind and seismic forces, analysis and design of telecommunication tower sites on undeveloped land, existing towers, existing water tanks and building rooftops, analysis and design of fiber optic installations in metropolitan and rural areas.

# FIELD EXPERIENCE AND INDUSTRIAL CONSULTING ACTIVITY (PARTIAL LIST):

## **Catastrophe Activities – Midwest and Alabama**

Determine scope of structural damage to residential and commercial property due to wind, tornado or hurricane.

# Concrete Supply Facility – Hutchinson, Kansas

Determine the scope of wind-related structural damage, including the segregation of preincident damage, to two concrete material silos and a prefabricated metal building.

# Church - Kansas City, Missouri

Evaluate cause of church building collapse.

# **Liquid Fertilizer Plant – McPherson, Kansas**

Waste Gas Boiler Explosion - Construction and scheduling supervision of installation of new waste gas boiler and associated equipment.

## **Multistory Apartment Complex – Midwest and Alabama**

Determine the scope of wind and/or hail damage to roof coverings

# **Multistory Apartment Complex – Salamanca, Mexico**

Identify and evaluate deficiencies in construction, conduct on-site testing and provide technical opinions with respect to overall quality of construction.

## Scrap Metal Plant – Muskogee, Oklahoma

Evaluate scope of explosion-related damage to residences within two miles of furnace explosion at scrap metal plant.

## **Telecommunications Tower - Topeka, Kansas**

Evaluate cause of telecommunications tower collapse.

## **REGISTRATIONS:**

Registered Professional Engineer (P.E.) in the following states:

Alabama (# 25499) Kansas (# 14925)

Arkansas (#13588) Missouri (#E-2002004361) Colorado (#41080) Nebraska (#E-10321) Iowa (#19090) Oklahoma (#22710)

National Council of Examiners for Engineering and Surveying (Record #20847)

## PROFESSIONAL AND HONORARY SOCIETIES:

American Society of Civil Engineers (ASCE), Member 2001-Present

## **CONTINUING EDUCATION:**

# **Structural Engineering Conference**

University of Kansas, March 2017, Lawrence, Kansas

#### **Geotech Conference**

ASCE, April 2016, Overland Park, Kansas

# **Structural Engineering Conference**

University of Kansas, March 2016, Lawrence, Kansas

### **Forensic Analysis of Stair Descent Falls**

PDH Online, December 2015, Overland Park, Kansas

# **Structural Building Condition Surveys**

ASCE, December 2014, Overland Park, KS

#### **Concrete Repair Basics**

American Concrete Institute, February 2009, Kansas City, Kansas

#### **Soil Basics for Engineers**

Auburn University, October 2008, Lenexa, Kansas

# **Hurricane Damage Evaluation Procedures**

Engineering Design & Testing Corp, May 2006, Charlotte, North Carolina

#### **Wood Structures I**

International Code Council, February 2004, Overland Park, Kansas

## Foundation Types, Distresses and Repairs

Haag Engineering Co., January 2003, Oklahoma City, Oklahoma

#### **Commercial Roofs Damage Assessment**

Haag Engineering Co., March 2002, Des Moines, Iowa

#### **Composition and Wood Roofs Damage Assessment**

Haag Engineering Co., March 2002, Des Moines, Iowa

## **Roof Area Calculations and Inspection Techniques**

Haag Engineering Co., March 2002, Des Moines, Iowa

# 2000 International Building Code Wind and Snow Load Provisions

International Conference of Building Officials, January 2002, Des Moines, Iowa

# INVITED LECTURES, WORKSHOPS AND PRESENTATIONS:

"Hail Damage to Residential and Commercial Properties", Iowa-Nebraska Chapter of International Association of Special Investigation Units, Des Moines, Iowa, April 2002

"Hail Testing of Residential Roofing Materials", Engineering Design & Testing Corp, Kansas City, Missouri, February 2006

"The Appraisal Process and the Reference Hearing for the Resolution of an Insurance Claim", Engineering Design & Testing Corp., Columbia, South Carolina, February 2013