



11161 E. State Road 70, Suite 110 – Lakewood Ranch, FL 34202 <a href="https://www.msdengineering.net"><u>www.msdengineering.net</u></a> (website) & 941.400.0935 (mobile)

# PROFESSIONAL SUMMARY

Mark S. Densmore, P.E., S.I., DFE, FRSE is the MSD of MSD Engineering, LLC. (MSD), an engineer-owned and operated expert witness and structural forensic engineering Florida firm, with primary services in Bradenton, Sarasota, and Lakewood Ranch. MSD specializes in forensic property damage investigations and evaluations, structural design and analysis (including; structural repairs, alterations, and renovations), expert witness testimony, and special and milestone structural inspections.

- 30 years of experience (25 years in Florida) in the design and inspection of a variety of structural engineering projects, which includes 15 years of forensic investigative experience, and board-certification in forensic engineering.
- Authored 2000+ civil/structural forensic engineering reports and 500+ sinkhole and structural damage reports and inspected 1000+ residential and 100+ commercial structures.
- Produced signed and sealed structural repair, alteration, and renovation drawings for existing structures.
- Forensic engineering work related to evaluation of construction defects.
- Forensic engineering work related to structural damage evaluations, structural collapse and/or failure investigations, roofing system evaluations; cause, nature and extent of damage, wind and hail defects.
- Roofing system evaluations have been performed on numerous roofing types including: three-tab asphalt composition shingles; laminated composition shingles; clay and concrete tiles; built-up roofs; modified bitumen roofs, rolled roofing; thermoplastic polyolefin single-ply roofs (TPO); ethylene propylene diene terpolymer rubber roofs (EPDM); metal roofs; sprayed polyurethane foam roofs (SPF); and landscaped roofs.
- Forensic engineering work related to moisture source evaluations; cause, origin, and duration.
- Forensic engineering work related to termite damage, flooring damage, fire damage, and impact damage from trees, vehicles, etc.
- Forensic engineering work related to tornado and/or hurricane damage, wind v. flood damage evaluation, and retaining wall failures.

### **EDUCATION**

• Bachelor of Science (w/High Distinction) in Civil Engineering, Worcester Polytechnic Institute (WPI), Worcester, MA (1994).

# **REGISTRATIONS & CERTIFICATIONS**

- Registered Professional Engineer (P.E.) Florida License No. 54625
- Florida Special Inspector (S.I.) of Threshold Buildings License No. 2022
- Board-Certified Diplomate in Forensic Engineering (DFE) No. 1191
- Florida Board Recognized Structural Engineer (FRSE)



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Registered Professional Engineer in the following States:

- Alabama #34118
- Delaware #16759
- District of Columbia (DC) #907356
- o Georgia #036265
- Kansas #22901
- o Maryland #44427
- Massachusetts #48937
- Nebraska #14590
- o New York #088779
- o North Carolina #047421
- o Ohio #78503
- o South Carolina #36149
- Texas #128303
- o West Virginia #20004

### PROFESSIONAL ASSOCIATIONS/MEMBERSHIPS

- American Society of Civil Engineers (ASCE)
- o American Society of Testing and Materials (ASTM)
- o International Code Council (ICC)
- National Society of Professional Engineers (NSPE)
- National Academy of Forensic Engineers (NAFE)

### **CAREER HISTORY**

MSD Engineering, LLC – Board-Certified Forensic Engineer (09/2014 - Current)

Florida Structural Forensics, LLC – Board-Certified Forensic Engineer (08/2022 – 03/2024)

Various Forensic Engineering Firms – SDII Global Corporation, Scientific Applications in Forensic Engineering, HAAG Engineering, and Project Time & Cost (10/2010 – 08/2014)

on residential/commercial buildings as related to areas of reported damage/defects. Observed field conditions, evaluated structures, determined the cause, origin, and duration of the conditions, wrote and signed and sealed detailed engineering reports, and provided opinions as to the cause of the distress and recommendations for repair and/or replacement of structures.

### Mark S. Densmore, PE, SI and SolVer Structural Partnership, Inc. (07/2008 – 10/2010)

O Performed structural engineering and inspection services; including, research, design, analysis and structural calculations for residential work. Performed visual structural (forensic engineering) inspections, produced structural damage assessment reports, and provided project



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management. Established and provided the marketing for the Sarasota Branch of SolVer. Structural engineer and project manager for various residential and commercial buildings. Observed repair and restoration work, performed special inspections, and developed a working relationship with the SolVer team in Miami, Florida.

### Wilson Structural Consultants, Inc. (11/2003 – 08/2009)

o Professional Structural Engineer: Performed structural engineering and project management on a variety of projects utilizing materials such as masonry, steel, light-gauge, wood, and reinforced and post-tensioned concrete. Performed the post-tension consulting, analysis, design construction and inspection for 40+ post-tensioned concrete structures while acting as structural project engineer, construction administrator, and project manager for (2) two 30-story post-tensioned concrete condominium structures with a five-story parking/retail structure beneath at the Towers of Channelside in Tampa, FL. Provided marketing support and developed proposals for future structural engineering projects.

Various Structural and Specialty Engineering Firms – PTE Strand Co., Inc., Jenkins & Charland, Inc., Gopman Consulting Engineers, Ammann & Whitney Consulting Engineers, Willett Engineering Company, and Cable Concrete Structures (06/1994 – 07/2003)

## **CONTINUING EDUCATION COURSES (partial list)**

- How to Testify as an Expert Witness at Deposition and Trial
- o FL Laws & Rules for PE's
- o FL Ethics for PE's
- o Lessons from Failures of Building Envelopes
- o Engineer Investigation of Hurricane Damage (Wind v. Water)
- o Florida Building Code (FBC) 2020 (7<sup>th</sup> Edition) Chapter 16 Structural Design
- o Practical Forensic Engineering Property
- o Evaluating Damage and Repairing Wood Trusses
- o 28<sup>th</sup> Annual National Expert Witness Conference
- o Structural Forensic Engineering
- o Tile Roofing for High Wind Areas
- o Roof-to-Wall Flashing
- Asphalt Shingle Roofing for High Wind Regions
- o Tools to Ensure Effective Litigation Preparation and Testimony
- o How to Start, Build and Run a Successful Expert Witness Practice
- o Florida's Mandatory Structural Inspections
- o Tornado Design Using ASCE 7-16
- o 2023 Advanced FBC 8<sup>th</sup> Edition Significant Code Changes
- 2024 National Academy of Forensic Engineering (NAFE) Seminar