

Wind Damage Structural Evaluations

Presented by

Rick Abbott, PE, SE

Abbott Consulting Forensics and Design LLC



Presenter Bio: Rick Abbott

- Born in Minnesota in 1966 (Snow, Ice, Lakes)
- BS Civil Engineering – University of MN 1989
- Masters of Engineering (Civil) – Cornell 1990
- Professional Engineer (PE) in 1993
- Structural Engineer (SE) in 2003
 - 1 construction material testing
 - 19 years structural design
 - Licensed PE in 7 states
 - Licensed SE California
- Forensic Engineering in 2011
 - 10 years of inspecting distressed buildings
 - Report writing
 - A lot of time with eye on crazy stuff.

What is PE vs SE

<https://abbottforensic.com/what-is-a-structural-engineer/>

Frequent Asked Questions

<https://abbottforensic.com/faq/>

White Papers

<https://abbottforensic.com/white-papers/>

Forensic Engineer

<https://abbottforensic.com/what-is-a-forensic-structural-engineer/>

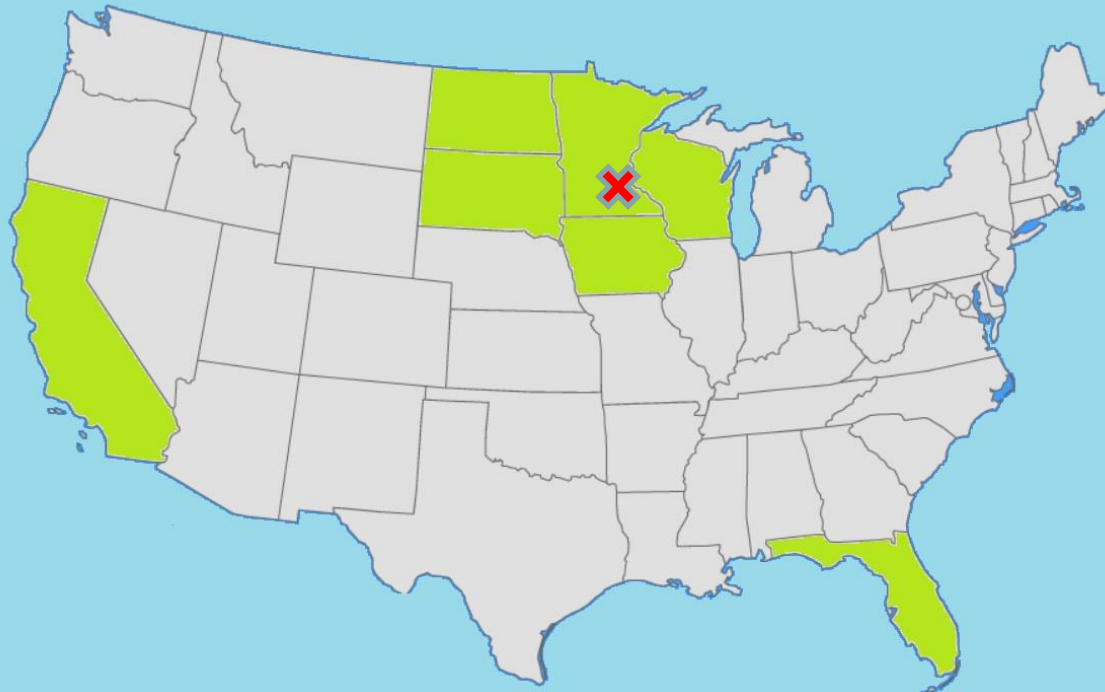
Seminars

<https://abbottforensic.com/seminars/>



Presenter Bio: Rick Abbott

The home office is in Minneapolis / St. Paul Area



Scope of Work:

What went wrong?

What is the Extent of Damage?

Offer Repair Recommendations



A Typical Assignment

- Scope Call (or email)
 - What is going on?
 - What is the claim?
 - What are the questions that need to be answered?
- Inspection is Needs & Questions Answered
 - What is the cause of damage?
 - What is the extent of wind damage?
 - Offer repair recommendations.

(Refer to the Structural Repairs Seminar)



Introduction

When a specific item is damaged by wind there are usually four things that are always present that support the correct conclusion that wind was the proximate cause.

1. Historical Weather History
2. Collateral Evidence of Wind
3. Eyewitness Testimony
4. Damage Consistent with Science
(Physics & Fluid Mechanics & Material Strength)



Wind Damage - Agenda

Introduction

1. Historical Weather History
2. Collateral Evidence of Wind
3. Eyewitness Testimony
4. Damage Consistent with Science
 - a. The Physics of Wind
 - b. Pressure & Velocity Relationship
 - c. Wind Design - Codes
5. Tornados
6. Hurricanes

