

PREFACE

Construction is an immensely diverse and complex industry. For the most part, the end products (projects) produced by architects, engineers, contractors, subcontractors, trade workers, and vendors of all kinds of materials and equipment are distinctly unique from all other projects. Unlike assembly line manufacturing, each construction project is built on a foundation that occupies a different piece of land, and in some cases that land is below the surface level of some body of water.

Each project requires a team of professionals. Professionals with skills in *design* and construction. Design professionals are expected to know how to transform the desires of a prospective project *owner* into a set of plans and specifications (contract documents) that reflect and satisfy those desires. Design professionals (architects and engineers) have been educated and trained to develop their expertise in architectural, structural, mechanical, electrical, geotechnical, civil, acoustical, environmental, and a host of other specialized areas of expertise. *Construction professionals* have been educated and trained to develop their expertise in transforming two-dimensional plans or three-dimensional models into full-size reality by their experience and knowledge of means, methods, techniques, and procedures. Yet, in today's litigious world, there is also a need for *legal professionals* who apply their expertise and knowledge of the law, including expressed and implied contract language, in order to establish the "rules of the game" by which *project owners*, *design professionals*, and *construction professionals*, are supposed to behave while performing their respective roles in the process of delivering a project from conception to reality.

It would be ideal if every project was delivered without any problems with its design or construction, or without any ruffled relationships between the parties. Problems can result from many causes, including design mistakes, poor quality of workmanship, unexpected cost overruns, or late completion. When the execution of a project falls short of the ideal, there is usually some sort of price to pay. In some cases, the parties can sort out the issues and resolve their differences and frustrations without formal dispute resolution processes. There are, however, projects where the issues and problems are of such a magnitude that the parties have no choice but to pursue legal remedies in a more formal manner.

The most formal manners of resolving disputes in construction are litigation in a court of law, arbitration, or some form of dispute resolution board (DRB). In litigation, a judge or jury will hear the evidence and decide the outcome of the dispute. In arbitration, it will be one or more arbitrators. Similarly, a DRB may have several decision makers. But because of the complexities involved in the design and construction of a project, a typical judge, jury member, or arbitrator, and less so, a DRB panel member, relying on his or her own experience, may not possess the expertise or knowledge to grasp or understand some of the nuances of construction issues that can swing the balance of justice between the positions staked out by one party or the other. In other words, in order to be fair, the judge, jurors, arbitrators, or DRB panel members will need to hear and see evidence produced by forensic technical experts who possess the knowledge and skill to identify, investigate, and analyze problems, and then clarify the issues and give testimony that will facilitate a just decision. This book seeks to examine the issues surrounding expert witnesses or consultants who help present or defend a claim or case. This book further provides an outlet for the authors who serve as expert witnesses, and the authors who engage expert witnesses, to address their unique roles.

One expert witness author summarizes his perspective in this way. "As an expert witness, my mission is to assist the triers-of-fact to ferret out WHO did WHAT to WHOM, WHEN, WHERE, HOW, and WHY, and how much is that WORTH in terms of TIME and MONEY. As a scheduling and damages expert, my role is to identify the CAUSES of problems and project delays, and to identify the corresponding EFFECTS in terms of labor and equipment inefficiencies, costs to correct, and extended time impact costs. Like the captivating CSI (Crime Scene Investigation) shows on television, a forensic *Construction Scene Investigation* can have its own twists and turns.

This book is intended to (1) assist those who wish to become a forensic expert witness in construction; (2) assist those who already are, and who wish to become a better forensic expert witness in construction; as well as (3) assist those who engage forensic expert witnesses so that they may become more effective and efficient in the way that they interact with and utilize the services of an expert witness. The goal is for those who are engaged, and for those who engage expert witnesses, to become more persuasive as a team in telling the story about each construction issue or problem in a way that makes a complex case easier to understand, makes the truth more self-evident, and exposes the fallacies of any attempt to obfuscate the truth.

The editors dedicate this book to their wives, Cristi Pratt, Krista Kester, and Karen Rosenberg, and thank them for constantly adjusting their lives and those of our families to make it possible for us to devote untold hours to our careers and the betterment of our profession.

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