A\n\nAfter forty-five years of experience as a structural engineering manager, including much trial and error, I have learned what works well and what does not. Based on what I have learned, I would like to offer this advice on five important topics.

Swim Upstream

More than one hundred years ago, master builders like Eiffel and Roebling dominated the structural engineering profession. Since then, structural engineers have gradually moved down the “food chain.” Whether self-imposed or not, their inferiority with your consent. Remember: other parties can only maintain their design intent is achieved. The project encountered multiple problems. The litigation that followed has been ongoing for six years, and the engineer, the contractor, and the developer have all declared bankruptcy. With the right people in the right environment, your firm is sure to prosper.

Embrace Construction

Only accept assignments that include full construction administration services. It is during construction that your risk is highest and more disputes arise than after completion. If the construction is deficient, you will be a party to any subsequent litigation whether or not you or your staff visited the job site. Insist on being paid for site visits and regularly visit every job site to ensure that your design intent is achieved. Structural engineers are often asked to certify the construction of their projects, and they often get themselves into trouble by doing so. You should never certify any construction unless a member of your firm provided observation of that construction. My advice is to certify only what you or your staff have personally observed and know to be fact.

Cherish Your People

Few firms enjoy truly unique technology, facilities, and other resources. The only long-term competitive edge that any firm has is its people. So hire only the best and the brightest. Place them in a professional environment with clear office policies, effective collaboration, first-rate technology, meaningful mentoring, real opportunities for training, and exposure to the profession beyond the workplace. Then challenge them with diverse projects and a bit more responsibility than you think they can handle. Correct their errors and shortcomings, but also reward their accomplishments with timely bonuses and recognition. Promote based on merit alone, and let the cream rise to the top regardless of seniority. Most important of all, listen intently to the thoughts and concerns of every person and act on what you hear.

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Make a Profit

There are many firms that never declare a project. Others gladly accept whatever fee is offered. Still others are content to work on handshake agreements without any written documentation. In doing so, they set the bar too low and damage the profession as a whole. Although engineering managers might be reluctant to admit it, their firms exist to make a profit. You are running a business, not a practice. Accordingly, without compromising your integrity or professionalism, you should strive to make a profit on every project. Insist on written agreements that adequately define your scope, schedule, and fee. Fulfill your commitments and never hesitate to demand additional fees whenever your scope grows or additional services are requested. Profitable firms are healthy firms, but they are maintained only through a sharp focus.

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