Application of ASTM E2691
Standard Practice for Job Productivity Measurement

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# Contents

Chapter 1—Introduction .................................................................................................................. 1
Chapter 2—System Productivity .................................................................................................. 5
Chapter 3—Making It Visible ...................................................................................................... 11
Chapter 4—Construction Financial Models ............................................................................... 23
Chapter 5—Labor Productivity ................................................................................................. 31
Chapter 6—JPM ASTM Standard Practice E2691 ................................................................. 35
Chapter 7—JPM Case Applications ......................................................................................... 53
Appendix 1—Common Cause Variation ............................................................................... 79
Appendix 2—Billing Based on JPM ........................................................................................ 83
Appendix 3—Suggested Literature ......................................................................................... 89
Index .............................................................................................................................................. 91
DR. PERRY DANESHGARI created MCA Inc. in 1990 with services focused on implementing process and product development, waste reduction and productivity improvement of labor, project management, estimation, accounting, and customer care. Some of the industries that have benefited from his expertise are construction (electrical, mechanical, and general contractors), banking, automotive (product development and manufacturing), medical, health care, and insurance organizations. In construction, MCA Inc. has worked with thousands of contractors to study, measure, and improve productivity.

Through Dr. Perry’s education and experience, particularly in manufacturing, he has translated the fundamental principles that were the roots of industrial engineering into the construction industry. The results have been better than 30% improvement on productivity and profitability on projects and within companies who have learned from him. As president and CEO of MCA Inc., he has built a company that focuses on implementation of process design and productivity improvement principles. Dr. Perry holds a Ph.D. in mechanical engineering, as well as an M.B.A. and master's degree in mechanical engineering. His undergraduate degrees are in civil and mechanical engineering. He has taught undergraduate, graduate, and executive-level classes at the University of Michigan, Michigan State University, and Oakland University on topics spanning from mechanical engineering to project management to concurrent engineering, and he has received multiple teaching special merit awards. He has also led hundreds of classes and workshops through various associations such as the National Electrical Contractors Association, the Sheet Metal and Air Conditioning Contractors' National Association, the Mechanical Contractors Association of America, the Canadian Mechanical Contracting Education Foundation, the Canadian Institute of Plumbing & Heating, and the Independent Electrical Contractors. The true focus of all of these has been connecting theory and application so that the science and laws of nature can be applied for more effective use of human resources. Dr. Perry was a board member for national research conducted by the United States National Research Council on “Advancing the Competitiveness and Efficiency of the U.S. Construction Industry.” He has published 4 books, conducted 12 research projects for construction and distribution industries, and published more than 45 papers and magazine articles, of which more than 25 are on the topic of this manual at hand. He holds multiple patents on process and product development. He is a member of ASTM International, the Construction Financial Management Association, the Engineering Society of Detroit, and the Society of Automotive Engineers.

HEATHER MOORE is the vice president of operations for MCA Inc. and has contributed to several research projects for MCA in the construction and distribution industries. Her role in the company has been to research and study the operations of the organizations with whom MCA works, to make productivity visible so that it can be measured and improved. She has been intimately involved with hundreds of construction projects to implement the concepts within this book. Heather is a Ph.D. candidate in construction management at Michigan State University; additionally, she holds an MBA from the University of Michigan-Flint and a B.S.E. in industrial and operations engineering from the University of Michigan, Ann Arbor. She has also led workshops and classes on the topics of lean distribution principles (in the wholesale/distribution industry) and on the topics of Agile Construction® principles in construction. Heather is currently the secretary for the Building Economics Subcommittee (E06.81), and she contributed to the E2691 standard authored by Dr. Perry Daneshgari. She has contributed to several articles in trade and professional magazines.

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