Curriculum vitae

Timothy C. Becker, Ph.D., P.E.

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EDUCATION

Doctor of Philosophy, December 2012
North Carolina State University, Raleigh, North Carolina
Department of Civil, Construction and Environmental Engineering
Major: Civil Engineering—Construction Engineering and Management
Thesis Title: *Improving the Predictability of Construction Project Outcomes through Indirect Construction Cost Practices at the Project Level*

Master of Business Administration, May 2001
Arizona State University, Tempe, Arizona

Bachelor of Science, Construction Engineering, May 1994
Iowa State University, Ames, Iowa

ACADEMIC WORK EXPERIENCE

Programs Chair, Construction Management & Technology, Del E. Webb School of Construction, School of Sustainable Engineering and the Built Environment, Arizona State University, Tempe, AZ, July 2024 – current, Interim from July 2023 – June 2024

Eminent Scholar, Del E. Webb School of Construction, School of Sustainable Engineering and the Built Environment, Arizona State University, Tempe, AZ, January 2023 - current

Professor of Practice, Del E. Webb School of Construction, School of Sustainable Engineering and the Built Environment, Arizona State University, Tempe, AZ, August 2026 - current

Lecturer, Department of Civil, Construction and Environmental Engineering,
Iowa State University, Ames, Iowa, August 2011 - December 2012

Research Assistant, Department of Civil, Construction and Environmental Engineering,
North Carolina State University, Raleigh, North Carolina, August 201 - December 2012

Research Assistant, Department of Civil, Construction and Environmental Engineering,
Iowa State University, Ames, Iowa, August 2010 - July 2011

Graduate Student Instructor, Department of Civil, Construction and Environmental Engineering,
Iowa State University, Ames, Iowa, July 2009 - July 2011

INDUSTRY WORK EXPERIENCE

Human Resources Director and Director of Craft and Technical Development, Kiewit Corporation, Omaha, Nebraska, 2013 - 2022

- Aligned corporate training functions with key business drivers through the development and execution of technical and non-technical programs.
- Managed a team of instructional designers and rotational engineers responsible for faculty development and continuous improvement of curriculum.
- Developed corporate strategy for craft development and led execution of new and improved craft training and engagement programs.

Vice President, Nelson Phoenix, LLC (Development & Construction Services), Phoenix, Arizona, 2005 - 2009

- Established a regional office in September 2005 and grew the local firm to 15 employees.
- Led the sales and business development efforts for third-party construction projects resulting in revenues exceeding $50,000,000 over 3-year period.
- Managed development process activities for numerous projects, including entitlements, due diligence, design coordination, pro forma development and project strategy, marketing and branding.

Representative Projects:

- The Vue on Apache, Tempe, Arizona | University Student Apartments
- Portland 38 Condominiums, Phoenix, Arizona | Multi-family Condominiums
- Chandler Airport Commerce Center, Chandler, Arizona | Industrial Warehouse

Senior Development Manager and Development Manager, The Alter Group, Phoenix, Arizona, 2001 - 2005

- Managed real estate development process, including land planning, engineering, landscape architecture, architecture, due diligence, subdivision/platting, permitting and construction.
- Managed tenant improvement projects, including selection and supervision of contractors, coordination of design services, and facilitation of tenant-client relationships.
- Procured permits and approvals from government authorities and utility companies.

Representative Projects

- Corridors Phases 1 and 5, Phoenix, Arizona | Corporate Office
- Arizona Health & Technology Park, Mesa, Arizona | Medical/Dental Office

Project Manager and Associate Project Manager, Opus West Construction Corporation, Phoenix, Arizona, 1998 - 2001

- Authored subcontracts, bid packages, project specifications and schedules.
- Managed subcontractor activities per project schedule, budget, and scope requirements.
- Estimated project costs for pre-construction approvals and financing process.

Representative Projects

- Arizona Department of Administration, Phoenix, Arizona | Governmental Office
- Mesa Corporate Center, Mesa, Arizona | Corporate Office
- Collier Center Office Building, Phoenix, Arizona | High Rise Office

Project Engineer, Field Engineer and Estimator, Mortenson Construction, Minneapolis, Minnesota, 1994 - 1998

- Managed on-site construction activities, e.g., pre-task planning, cost issue resolution, material procurement, subcontracting, and coordination of specialty trades.
- Completed project engineering tasks, e.g., material submittals and RFI process, meeting minutes, and maintenance of project record drawings.
- Participated in hard bid and negotiated type project delivery methods.

Representative Projects

- Elmhurst Memorial Center for Health, Elmhurst, Illinois | Medical Office
- Walt Disney World's Wide World of Sports Complex, Orlando, Florida | Sports Facility

ACADEMIC LEADERSHIP & SERVICE ACTIVITIES

- Sigma Lambda Chi, Construction Honor Society, International Executive Committee (member 2023 – current, Vice President 2024 - current)
- National Electrical Contractors Association (NECA) Student Chapter at Arizona State University, Chapter Advisor (2023 - current)
- Mechanical Contractors of Association of America (MCAA) Student Chapter at Arizona State University, Chapter Advisor (2024 - current)
- Journal of Construction Engineering and Management, Reviewer (2023 – current)
- Lean Construction Journal, Reviewer (2011 - 2012, 2023 - current)
- Journal of Architectural Engineering, Reviewer (2023 - current)
- Graduate Student Council, Department of Civil, Construction & Environmental Engineering, Iowa State University (2010 - 2011)
- Associated Schools of Construction, Faculty Professional Development Committee (2011 - 2012)
- Construction Research Congress, Proceedings Reviewer (2011 – 2012, 2025 – current)
- Associated Schools of Construction, Proceedings Reviewer Committee (2011 - 2012)
- American Society of Engineering Education, Reviewer (2011 - 2012)

PROFESSIONAL SERVICE & MEMBERSHIPS

- Member, American Society of Civil Engineers (2011 - 2012, 2023 - current)
- Member, Lean Construction Institute (2010 - 2012)
- AACE International (Member 2021), Student and University Outreach Joint Task Force (2023 - 2024)
- Executive Committee Member, Iowa State University, Department of Civil, Construction and Environmental Engineering, Construction Engineering Industry Advisory Board (2015 - 2022)
- Member, Iowa Western Community College, Construction Technology Advisory Committee (2018 - 2022)
- Member, National Center for Construction Education & Research (NCCER), National Workforce Development Committee (2017 - 2021)
- Member, Associated Builders & Contractors, National Workforce Development Committee (2018 - 2020)
- Member, National Society of Professional Engineers (2011 - 2012)
- Member, American Society for Engineering Education (2011 - 2012)

COMMUNITY LEADERSHIP & SERVICE ACTIVITIES

- Elected Director, Glenwood Community School District School Board, Glenwood, Iowa (served 2018 - 2022)
- Mayor-Appointed Member, City of Glenwood, Planning & Zoning Committee, Glenwood, Iowa (2017 - 2022)
- President, Glenwood Community Schools Foundation Board (2016–2018)
- Vice President (2016 - 2018), Member of Board of Directors, Glenwood Public Library Foundation, Glenwood, Iowa (2013 - 2018)
- Elected Member of Board of Directors, Iowa State University Alumni Association, Ames, Iowa (2011 - 2016)
- Member of Board of Directors, Glenwood Alumni Association, Glenwood, Iowa (2013 - 2016)
- Village Planning Committeeperson, Phoenix, Arizona (2003 - 2009)
- Commissioner, Transportation Commission, Tempe, Arizona (1999 - 2000)
- Vice President (2011–2012) and Secretary (2010 - 2011), Iowa FarmHouse Fraternity Association Board, Ames, Iowa

PUBLICATIONS

Journal Articles

1. Isingizwe, J., Eiris, R., Parrish, K., HaRim Ahn, L., **Becker, T.** (2026). "Perceived Expertise and Prejudice Towards Construction Professionals: Exploring U.S. Student's Views Across Professional's Race and Sex Through Immersive Storytelling." *Journal of Construction Engineering & Management*, Vol. ?, No. ?, Month ? 2016 (pending).

2. **Becker, T.**, Jaselskis, E. and El-Gafy, M. (2014). "Improving the Predictability of Construction Project Outcomes through Intentional Management of Indirect Construction Costs." *Journal of Construction Engineering & Management*, Vol. 140, No. 6, June 2014.

3. **Becker, T.,** Sanvido, V., Kufahl, G., Elston, A. and Woodard, N. (2014). "Investigation into the Relationship of Construction Engineering and Management Education with Specialty Trade Contractors." *Practice Periodical on Structural Design and Construction*, Vol. 19, No. 1, February 2014, ISSN: 1084-0680.

4. **Becker, T.**, Shane, J., and Jaselskis, E. (2012). "Comparative Analysis of Lean Construction with Design-Build Using a Framework of Contractual Forms of Agreement." Technical Note. *Journal of Architectural Engineering*, Vol. 18, No. 2, June 2012.

5. Jaselskis, E., Schexnayder, C., Fiori, C., **Becker, T.,** Hung, Wu-Cheh, Beckman, C., Kaewmoracharoen, M., Chang, G. Celaya, M., and Alarcon, D. (2012). "Innovative Technologies Used to Investigate Segments of the Inca Road." *Journal of Professional Issues in Engineering Education and Practice*, July 2013, Vol. 139, No. 3.

6. Jaselskis, E., Ruwanpura, J., **Becker, T.,** Lahiru, S., Jewell, P. and Floyd, E. (2011). "Innovation in Construction Engineering Education Using Two Applications of Internet-based Information Technology to Provide Real-Time Project Observations." Proceeding of the Construction Engineering Conference, Blacksburg, Virginia. *Journal of Construction Engineering and Management*, October 2011, Vol. 127, No. 10, ISSN: 0733-9364.

Refereed Conference Papers

1. **Becker, T.** Federle, M., Kadu V., Garcia, G. and Saegert, M. (2026). "A Mixed Methods Study regarding Schedule Compression and Out-of-Sequence Work for Electrical Contractors." *Proceedings of the 2026 Associated Schools of Construction Conference,* San Luis Obispo, California, April 15-17, 2026.

2. **Becker, T.**, Khadilkar, M., Kadu, V.; Ali, M. Kintali, S. and Darade, Y. (2026). "The Current State of Using AI Applications for Field Coordination Meeting Minutes of Construction Projects." *Proceedings of the 2026 Construction Research Congress*, American Society of Civil Engineers, San Antonio, TX. March 18-21, 2026.

3. Al Sultan, **Becker, T.**, Parrish, K. (2025). "Skills for Success as a Frontline Supervisor: Focus Group Results," *Proceedings of the 2025* CIB Conferences, Vol. 1, Article 238.

4. **Becker, T.**, Shane, J., Lamanna, A., van Buren, M., and Scheer, J. (2024). "Results of a Groundbreaking Integrated Delivery Project: Multi-stakeholder Assessments and Lessons Learned from the Waaban Crossing Bridge." *Proceedings of the 2024 Construction Research Congress*, American Society of Civil Engineers, Des Moines, IA, March 20-23, 2024, eISBN: 9780784485286.
5. Shane, J., **Becker, T.**, Roberts, C., Kiggins, M. and van Buren, M. (2020). "Owner and Contractor Choices and Dilemmas: Contemporary Project Delivery Options." *Proceedings of the 2020 Construction Research Congress*, American Society of Civil Engineers, Tempe, AZ, March 8-10, 2020.
6. **Becker, T.**, El-Gafy, M. and Jaselskis, E. (2012). "Considerations for Estimating, Controlling and Managing Indirect Construction Costs." *Proceedings of the 2012 Construction Research Congress*, American Society of Civil Engineers, West Lafayette, IN, May 21-23, 2012.
7. Fiori, C., Jaselskis, E., Schexnayder, C., Shane, J., **Becker, T**., Short, K., Rodruiguez, E., Chang, G. and Vranich, A. (2012). "Working in Inter-Disciplinary, Multi-Cultural Teams: Lessons from the Field." *Proceedings of the 2012 Construction Research Congress, American Society of Civil Engineers*, West Lafayette, Indiana, May 21-23, 2012.
8. Jaselskis, E., Schexnayder, C., Fiori, C., **Becker, T.**, Kaewmoracharoen, M., Beckman, C., Hung, A. and Short, K. (2012). "Using Tele-engineering as a Tool to Reverse Engineer the Inka Road." *Proceedings of the 2012 Construction Research Congress, American Society of Civil Engineers*, West Lafayette, Indiana, May 21-23, 2012.
9. **Becker, T.**, Sikkema, J., Oneyear, N. and Nambisan, S. (2012). "Catalyzing Graduate Student Research Dissemination: Case Study of a Technical Poster Competition." *2012 Conference Proceedings of the American Society of Engineering Education*, San Antonio, Texas, June 10-13, 2012.
10. **Becker, T.**, Jaselskis, E., and Woodard, N. (2012). "Feasibility of Tele-Presence for Project Pre-bid Conferences." *2012 Conference Proceedings of the International Conference of Construction and Real Estate Management*, Kansas City, Missouri, October 1-2, 2012.
11. **Becker, T.** Jaselskis, E., and McDermott, Cory P. (2011). "Implications of Construction Industry Trends on the Educational Requirements for Future Construction Professionals." *Proceedings of the 2011 Associated Schools of Construction Conference,* Omaha, Nebraska, April 26-29, 2011.
12. Jaselskis, E., Jahren, C., Jewell, P., Floyd, E. and **Becker, T.** (2010). "Virtual Construction Project Field Trips using Remote Classroom Technology," *Proceedings of the 2010 Construction Research Congress*, American Society of Civil Engineers, Banff, Alberta, Canada, May 8-10, 2010.

Other Publications

1. **Becker, T.** Federle, M. (2024). "Managing to Ensure Fair Outcomes for Electrical Contractors for Out-of-Sequence Work & Schedule Compression," September 2024, ELECTRI International.

2. **Becker, T.** (2008). "Sustainable Contracting on a Budget," May 2008, *Modern Contractor Solutions Magazine.*

3. **Becker, T.** and Shane, J. (2012). Introduction to Chapter 6—"Estimating Salvage/Residual Value" in Life Cycle Cost Analysis Professional Practice Guide by C. Lopez del Puerto and D. D. Gransberg, AACE-International, ISBN: 1-885517-60-2.

CONFERENCE PRESENTATIONS & ATTENDANCE

1. Associated Schools of Construction (ASC) International Conference, April 15-17, 2026, San Luis Obispo, CA (paper presenter).
2. 2026 Construction Research Congress, San Antonio, TX, USA. March 18-21, 2026 (paper presenter, panelist for "Sustaining the Workforce across the Asset Lifecycle: Attracting, Developing, and Retaining Talent in Construction).
3. 2026 Mechanical Contractors Association of America (MCAA) Annual Convention, March 15-19, 2026, Phoenix, AZ.
4. 2026 Construction Management Association of America (CMAA) Conference, October 19-21, 2026. Nashville, TN.
5. National Electrical Contractors Association (NECA) 2025 Convention, September 12-15, 2025, Chicago, IL.
6. 2025 Mechanical Contractors Association of America (MCAA) Annual Convention, March 2-6, 2025, Austin, Texas.
7. National Electrical Contractors Association (NECA) 2024 Convention, September 28-October 1, 2024, San Diego, California (session presenter)
8. 2024 Construction Research Congress, March 20-23, 2024, Des Moines, Iowa, USA (paper presenter)
9. 2020 Construction Research Congress, March 8-10, 2020, Tempe, Arizona, USA (paper presenter).
10. Construction Engineering Conference, March 27 - 28, 2014, Seattle, Washington paper co-presenter).
11. 12th Annual Colloquium on International Engineering Education, October 22-25, 2009, Ames, Iowa.
12. 2010 Construction Research Congress, May 8-10, 2010, Banff, Alberta, Canada (paper presenter).
13. Construction Engineering Conference, September 30-October 2, 2010, Blacksburg, Virginia, (paper co-presenter).
14. 2010 Lean Construction Institute (LCI) Lean Construction Congress, October 19-22, 2010, Boulder, Colorado.
15. 2001 National Science Foundation (NSF) Research and Innovation Conference, January 4-7, 2011, Atlanta, Georgia.
16. Associated Schools of Construction (ASC) International Conference, April 6-8, 2011, Omaha, Nebraska (invited presenter).
17. 2011 Lean Construction Institute (LCI) Academic Forum, May 12-13, 2011, Boulder, Colorado (presenter).

18. 2011 Construction Industry Institute (CII) Annual Conference, July 25-27, 2011, Chicago, IL (invited poster presenter)
19. 2011 Construction Management Association of America (CMAA) Conference, November 5-7, 2011, Washington, DC (invited presenter)
20. The Durham School Ph.D. Symposium, March 14-17, 2012, Omaha, Nebraska (invited presenter)
21. 2012 Construction Research Congress, May 21-23, 2012, West Lafayette, Indiana (paper presenter).
22. 2012 Association of Engineering Education, June 10-13, 2012, San Antonio, Texas (paper co-presenter).
23. 2012 International Conference on Construction and Real Estate Management, October 1-2, 2012, Kanas City, Missouri (paper presenter)
24. 2012 Lean Construction Institute (LCI) Lean Construction Congress, October 10-11, 2012, Arlington, Virginia.

HONORS & AWARDS

- 2012 AACE (Association for the Advancement of Cost Engineering) International Competitive Scholarship Award (2012)—$2,000
- National Society of Professional Engineers 2011 Professional Engineers in Construction (PEC) George B. Hightower Fellowship (2011)—$3,000
- Koch Civil Engineering Fellowship, Iowa State University (2009)—$3,000
- Wallace E. Barron All-University Outstanding Senior Award, Iowa State University (1994)
- W. A. Klinger Award for Outstanding Graduate of Construction Engineering, Iowa State University (1994)
- Tau Beta Pi, Engineering Honor Society, Iowa State University
- Sigma Lambda Chi, Construction Honor Society, Iowa State University
- Elected Senior Class President, Iowa State University

RESEARCH PROJECTS & INITIATIVES

Pathways to Craft Workforce Success (RT-436)

Funding Source:	Construction Industry Institute (CII), Austin, Texas
Duration:	Fall 2025 - Fall 2026
Amount:	$120,727
PI:	Kristen Parrish, Ph.D.
Co-PI:	Timothy C. Becker, Ph.D.

Fair Outcomes for Electrical Contractors for Schedule Compression and Out-of-Sequence Work

Funding Source:	ELECTRI International

Duration: August 2023 – June 2024
Amount: $30,220
PI: Timothy C. Becker, Ph.D.
Co-PI: Mark O. Federle, Ph.D.

Developing the Next Generation Front Line Supervisor (RT-414)

Funding Source: Construction Industry Institute (CII), Austin, Texas
Duration: Fall 2023 - Fall 2025
Amount: $256,585
PI: Kristen Parrish, Ph.D.
Co-PI: Timothy C. Becker, Ph.D.

Graduate Student Researcher, Management of Indirect Construction Costs

Funding Source: Construction Industry Institute (CII), Austin, Texas
Duration: Fall 2010 - Fall 2012
Advisor: Edward J. Jaselskis, Ph.D.

Virtual Project Tours

Funding Source: Taylor Ball Fund, Iowa State University, Ames, Iowa
Duration: Fall 2009 - Fall 2012
Advisor: Edward J. Jaselskis, Ph.D.

Construction Industry Trends

Funding Source: Construction Industry Institute (CII), Strategic Planning Committee
Duration: Fall 2009 - Spring 2011
Advisor: Edward J. Jaselskis, Ph.D.

Construction Engineering Conference

Funding Source: National Science Foundation
Duration: Spring 2010 - Fall 2010
Advisor: Edward J. Jaselskis, Ph.D.

Tele-Engineering Applications to Reverse Engineer the Inka Road System

Funding Source: National Science Foundation
Duration: Fall 2010 - Spring 2011
Advisor: Edward J. Jaselskis, Ph.D.

UNIVERSITY CURRICULA TAUGHT

Arizona State University, CON 495/CNE 495: Construction Planning & Scheduling (3 credits)—Instructor

- Spring 2023 93 students
- Summer 2023 28 students
- Fall 2023 79 students
- Spring 2024 111 students
- Summer 2024 48 students
- Fall 2024 77 students
- Spring 2025 111 student
- Summer 2025 28 students
- Fall 2025 93 students
- Spring 2026 103 students (on ground) and 14 on-line
- Summer 2026
- Fall 2026

Arizona State University, CON 598/CON 494: Human Resource Management for Construction—Instructor

- Spring 2023 14 students

Arizona State University, CON 448: Sustainable Construction—Instructor

- Summer 2023 40 students

Arizona State University, CON 490: Undergraduate Honors Research Projects (research project advising)

- Spring 2024 Mr. Harrison Barnes
  "*Frontline Supervisor Communication Efficiency in the Construction Industry*"
- Summer 2024 Mr. Tyler Bruning
  "AI Integration in Preconstruction and Procurement: Insights from Staff Opinions"
- Spring 2025 Mr. Andrew Miller
  "The Effects of Transit Oriented Development on Real-Estate Investment and the Built Environment: A Case Study and Comparison of Apache Boulevard and Broadway Road in Tempe, Arizona"
- Spring 2026 Ms. Martha Nunez-Rodriguez, Ms. Maritza Lopez, and Ms. Malia Tio
  "AI Integration in Preconstruction and Procurement: Insights from Staff Opinions"

Iowa State University, CON E 221: Engineering Economics (1 credit)—Instructor

Explanation of common engineering economics concepts, including time-value of money calculations (given either formulae or interest factor tables) and application of those formulae to construction applications and management decisions, e.g., alternative analysis and rate of return evaluations.

- Fall 2009 62 students
- Spring 2010 44 students

- Fall 2010 60 students
- Spring 2011 44 students
- Fall 2011 47 students

Iowa State University, CON E 380: Engineering Law (3 credits)—Instructor

Introduction to the law as related to the practicing engineer. Legal subjects include contracts, professional liability, ethics, licensing, bidding procedures, intellectual property, product liability, environmental regulations, and real property. Emphasis placed on development of critical thinking process and case scenario analysis. I taught this class for Distance Education, including synchronous and asynchronous delivery.

- Summer 2010 32 students (in-classroom & on-line sections)
- Fall 2010 9 students (on-line section only)
- Spring 2011 2 students (on-line section only)
- Summer 2011 36 students (in-classroom & on-line sections)
- Fall 2011 25 students (on-line section only)
- Spring 2012 30 students (on-line section only)
- Summer 2012 37 students (in-classroom & on-line sections)
- Fall 2012 54 students (on-line section only)

Iowa State University, CE 306: Project Management for Civil Engineers (3 credit)—Instructor

Introduction to project management topics, including work breakdown structures, cost estimating, scheduling and project control. Presentation of complete capital improvement project life cycle, including planning, design, construction, and maintenance processes. Laboratory periods provide training on contract document interpretation and quantity estimation.

- Spring 2010 60 students (instructor of laboratory period only)
- Fall 2012 58 students (primary instructor of course)

Iowa State University, Con E 488: Advanced Project Management (3 credits) —Assistant Instructor

- Fall 2011 29 students
- Spring 2012 52 students
- Fall 2012 37 students

Iowa State University, C E 594N: Industrial Construction Special Topics (3 credits)—Campus Coordinator

- Fall 2011 8 students (in-classroom & on-line sections)
- Fall 2012 5 students (in-classroom & on-line sections)

Iowa State University, Con E 502: Construction Project Engineering & Management (3 credits)—Asst. Instructor

- Spring 2012 16 students (in-classroom & on-line sections)

Iowa State University, CON E 490: Undergraduate Research Projects (research project advising)

- Fall 2011 — Mr. Duong Bai Van
  "*Categorizing and Improving Construction Process through Information Technology and Communication*"
- Fall 2012 — Mr. Aaron Elston
  "Specialty Trade Contractor Selection within Lean Construction Context"

PROFESSIONAL LICENSURE

Registered Professional Engineer, State of Arizona, License No. 38760, Since 2003