



BC&E

# Professional Qualifications

Christopher S. Dunbar, P.E.

Denver Branch Manager  
Principal

## EDUCATION

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**Master of Science**, Civil Engineering, University of Illinois at Urbana-Champaign, 2002

**Bachelor of Science**, Civil Engineering, University of Illinois at Urbana-Champaign, 2001

## PROFESSIONAL REGISTRATIONS AND MEMBERSHIPS

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**Registered Professional Engineer** in Colorado, Arizona, Illinois, Missouri, and New Mexico

**Certified Weld Inspector (CWI)**

**Level 1 Technician** Society of Professional Rope Access Technicians (SPRAT)

**Memberships:** Structural Engineers Association of Colorado (SEAC)

International Concrete Repair Institute (ICRI)

ICRI Chapter Board Member 2014-2020: Chapter President 2021

American Welding Society (AWS)

Building Operators Association of Colorado (BOAC)

## PROFESSIONAL EXPERIENCE

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**2013 - Present:** Building Consultants & Engineers, Inc.  
Denver Branch Manager/Principal

**2003 - 2013:** Wiss, Janney, Elstner Associates, Inc.,  
Lakewood, Colorado  
Structural Engineer

**2015 - Present:** Colorado Task Force 1, Urban Search and Rescue  
Structures Specialist for FEMA Urban Search and Rescue Team

Christopher Dunbar has extensive experience in the inspection, analysis, and repair of existing buildings and bridges. He has investigated and designed repairs of deteriorated structures of reinforced concrete, pre-stressed concrete, steel, and timber. Mr. Dunbar has led investigative teams in weld inspection and non-destructive testing including visual, ultrasonic, and magnetic particle testing on a variety of steel structures, and has conducted the analysis of, and designed the repairs to failed welds. In addition, Mr. Dunbar has experience in load testing and computer modeling of existing structures including parking garages and bridges.

Mr. Dunbar has led analysis, inspection, and repair design of plate-connected wood trusses at more than 200 nationwide chain restaurants. He has also designed structural repairs, prepared construction documents, and provided construction phase services for major structural and plaza renovations; and evaluated tornado and snow storm-related damage to multiple structures. His expertise also includes extensive and in-depth knowledge related to waterproofing system design, construction, evaluation, and repair, including plazas, rooftop terraces, foundation walls, and other building envelope elements.

Mr. Dunbar has also completed inspections and evaluations of a wide range of bridge types, including concrete girder, steel plate girder, and truss bridges, as well as the installation of retrofits at locations of fatigue sensitive details and cracks in steel bridges utilizing rope access techniques.

Mr. Dunbar developed and managed an engineering team involved in the analysis and design of repairs to hundreds of roof structures nationwide. For this work, he developed a comprehensive system for the analysis and repair of steel joist roof structures including the creation of a methodology for the analysis and design of repairs to maximize efficiency and provide consistent quality of the project.

As a member of Colorado Task Force 1, Mr. Dunbar is a subject matter expert in assessing damaged structures and assisting with search and heavy rescue operations. Mr. Dunbar has most recently deployed to assist the search and rescue mission in Florida following Hurricane Irma in 2017.

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