

BC&E

Professional Qualifications

Christopher M. Morgan, P.E. Principal California Branch Manager

EDUCATION

Bachelor of Science, Civil Engineering, Metropolitan State College of Denver, 1993 Associates Degree of Applied Science, Construction Technology, Red Rocks Community College, 1984

PROFESSIONAL REGISTRATIONS AND MEMBERSHIPS

Registered Professional Engineer in Colorado and Georgia

Memberships: Building Envelope Council

Sealant, Waterproofing, and Restoration Institute, Associate Member

American Concrete Institute

PROFESSIONAL EXPERIENCE

2005 - Present: BC&E, LLC (formerly Building Consultants & Engineers, Inc.)

California Branch Manager/Principal

1988 - 2005: Wiss, Janney, Elstner Associates, Inc.,

> Lakewood, Colorado Senior Associate

1985 - 1988: KKBNA Engineering, Inc., Denver, Colorado

Senior Technician

Mr. Morgan has extensive experience in the evaluation of and design of repairs for existing buildings and structures. Many of his projects involve long-term damage and deterioration of structural components, as well as construction material problems and design and construction-related issues. He has investigated numerous problems associated with building structures and exterior building wall construction, and designed repairs to address such problems. In his activities related to concrete structures, Mr. Morgan has developed a special interest and expertise in various types of post-tensioning systems and other concrete repair materials and techniques. Mr. Morgan has designed unique and innovative repairs to concrete structures which had experienced distress and failure. Mr. Morgan has participated in the investigation of the failures of two separate long-span wood trusses, and has analyzed and developed repairs for several projects that include wood-frame truss connections. He also served as the resident engineer during two long-term structural repair projects. Mr. Morgan's range of structural engineering experience includes load tests of rigging anchors, floor systems, and roof systems. He has performed multiple structural analyses for buildings or portions of building structures.

Mr. Morgan's professional experience of evaluating buildings also encompasses a variety of exterior cladding and fenestration systems. One area of particular expertise involves masonry buildings of brick, concrete block, stone, stucco, and terra cotta, as well as site-cast and precast concrete. Other cladding systems with which Mr. Morgan has expertise include cementitious stucco, EIFS, and synthetic stone veneer. He has widespread knowledge of storefronts, curtain walls, and window systems, and has evaluated designs and performed testing on installed systems. In his evaluation of building exteriors, Mr. Morgan developed and performed roped-access and rappelling techniques to facilitate up-close observation of difficult-to-reach areas.

His expertise also includes extensive and in-depth knowledge related to waterproofing system design, roofing systems, construction, evaluation, and repair, including plazas, rooftop terraces, foundation walls, below-slab waterproofing systems, and tanked structures and other below-grade structures.

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