

EXPERIENCE

- Forensic Engineer/Owner, The Mertens Group, LLC | Colorado Springs, CO | September 2022 – Present
- Architectural/Structural Plans Review Engineer, City and County of Denver | Denver, CO | September 2022 – October 2023
- Engineering Manager, Knott Laboratory, LLC | Centennial, CO | April 2019 – September 2022
- Professional Engineer, Martin/Martin Consulting Engineers | Avon, CO | April 2015 – March 2019
- Graduate Engineer, Walter P Moore | Houston, TX | September 2013 - March 2015

ENGINEERING

Mr. Mertens has performed investigations on properties/structures as it relates to fire, moisture intrusion, inadequate drainage, pipe failure, hail, wind, snow, soil expansion and subsidence, structural member failure, vehicular collisions, construction defects, building explosions, mechanical damage, and premises liability. He focuses on issuing professional opinions on the cause, stability, and/or safety of the building components. In addition to investigations and professional opinions, Mr. Mertens designs repairs for the reconstruction of existing structures as well as the construction of new structures.

Mr. Mertens has been involved in the review and evaluation of architectural and structural construction documents submitted for approval utilizing applicable codes, standards, guidelines, laws, appropriate municipal ordinances, and construction and engineering standards as well as authorizing the release of approved documents for city permits and construction. As a result of this work, he understands the application of the many building codes and standards available and how to interpret code compliance. In addition to code compliance for structural components, Mr. Mertens has assessed projects for occupancy classification and use as well as code compliance of egress, accessibility, fire and smoke protection, and energy efficiency.

Mr. Mertens has managed numerous aspects of construction projects. Including the review and approval of pay applications, managing the bid and securement of supplemental contractors, scheduling and leading weekly project team meetings, and approving work for continuation of projects.

Mr. Mertens has structural design experience collaborating with a design team to deliver projects that range from high rises, stadiums, healthcare, hotels, education, governmental, and residential. These projects span from concept to completion and include structural materials such as steel, concrete, masonry, and wood. Furthermore, Mr. Mertens has performed various property condition assessments to help building owners interpret the existing conditions present in the structural and nonstructural building components.

PROFESSIONAL ENGINEER REGISTRATIONS

Licensed Professional Engineer in the following States: AZ, CO, NM, NV, TX, WY

EDUCATION

M.S. in Civil Engineering, Structural Emphasis, Texas A&M University, College Station, TX, 2015

B.S. in Civil Engineering Technology, Colorado State University-Pueblo, Pueblo, CO, 2011 *Summa cum Laude*

PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS

- National Council of Examiners for Engineering and Land Surveying (NCEES)
Model Law Engineer ID: 17-453-67
- American Society of Civil Engineers (ASCE)
- Structural Engineers Association of Colorado (SEAC)
- The Association for Preservation Technology International (APT)

PUBLICATIONS

- "Facility Condition Assessments and the Role of an Engineer," Common Interests, November 2021
- "Load Sharing and Spacer Flexibility in Double Pane and Triple Pane Insulating Glass Units," Texas A&M University, May 2015

SELECT TECHNICAL CONFERENCES AND SEMINARS

- 2021 ICRI Fall Convention | Continuing Education Conference | Minneapolis, MN | Attendee | October 12, 2021
- "Advanced Repair: Structural Distress, Assessment & Strengthening Solutions" | World of Concrete Education Program | Las Vegas, NV | Attendee | January 17, 2022
- "Post-Tensioning: Repairs, Modifications & Evaluation of Existing Structures" | World of Concrete Education Program | Las Vegas, NV | Attendee | January 17, 2022
- "Repairing Concrete Cracks: Evaluation & Selection of Repair Methods" | World of Concrete Education Program | Attendee | Las Vegas, NV | January 18, 2022

- “Sealers & Surface Protection to Ensure Proper Selection for Every Project” | World of Concrete Education Program | Attendee | Las Vegas, NV | January 18, 2022
- “Slab Repair Techniques for Parking Lots, Roadways & Airfields” | World of Concrete Education Program | Attendee | Las Vegas, NV | January 20, 2022
- “Facility Condition Assessments” | Continuing Education Class | Scottsdale, AZ | Presenter | May 10, 2022
- “Facility Condition Assessments” | Continuing Education Class | Tucson, AZ | Presenter | May 11, 2022
- “Facility Condition Assessments” | Continuing Education Class | Lakewood, CO | Presenter | May 12, 2022
- “Live Burn 2022” | Continuing Education Seminar | Colorado Springs, CO | Presenter | September 14, 2022
- “IECC Goes High Performance” | Colorado Code Council Continuing Education Institute | Loveland, CO | Attendee | March 6, 2023
- “Accessibility Plan Review” | Colorado Code Council Continuing Education Institute | Loveland, CO | Attendee | March 8, 2023
- “2021 IBC Means of Egress” | Colorado Code Council Continuing Education Institute | Loveland, CO | Attendee | March 9, 2023
- Weekly Continuing Education Classes Hosted by Walter P Moore | Houston, TX | Attendee | Taught by Both in House Staff and External Presenters
- Weekly Continuing Education Classes Hosted by Martin/Martin | Lakewood, CO | Attendee and Presenter | Taught by Both in House Staff and External Presenters | Attended Both at the Lakewood Office and Virtually
- 2024 Advanced Fire Investigation Seminar | The Denver Fire Department | “Building Construction for the Fire Investigator” | Presenter (8 Hour Class) | May 6, 2024
- 2025 Saving Places Conference | Colorado Preservation Inc. | “Behind the Façade: Exploring Main Streets’ Buildings and Their Codes” | Presenter | January 29, 2025

SELECT COMMERCIAL EXPERIENCE

- **Hilcorp Energy Tower** | 1111 Travis St, Houston, TX | 23 Story Office Tower
- **Kyle Field Redevelopment** | College Station, TX | Football Stadium
- **Houston Methodist Sugar Land Hospital** | Sugar Land, TX | 7 Story Hospital Expansion
- **Memorial Hermann Sugar Land Hospital** | Sugar Land, TX | 6 Story Hospital Expansion
- **Abilene Christian University – Halbert-Walling Research Center** | Abilene, TX | Campus Science Facility with Expansive Glass Façade, Thin Roof Profile and Prominent “Floating” Interior Structure
- **Texas A&M University Corps Dorms Renovation** | College Station, TX | Campus Dorms
- **Cameron International Office Campus Conceptual Plan** | Houston, TX | Conceptual Design for Company Campus Development | Design Included Numerous Buildings
- **Zeke M. Pierce Skatepark** | Vail, CO | New Skate Park
- **Bureau of Land Management Field Office Renovation** | Montrose, CO
- **HOA Lakehouse at Mountain Development** | Edwards, CO | New Community Amenity
- **iFLY Indoor Skydiving** | Tampa, FL | New Indoor Skydiving Facility
- **Little Bighorn Battlefield National Monument Building Assessment** | Crow Agency, MT
- **Vail Health East Wing Expansion** | Vail, CO | Hospital Addition Consisting of a Five Story Parking Garage with Eight Stories of Hospital Floors Above the Garage
- **Big Dog Car Wash Vehicle Impact Repair** | Gypsum, CO
- **National Renewable Energy Laboratory Addition** | Golden, CO
- **Denver Art Museum** | Denver, CO | North Building Renovation
- **Solaris Residences Renovation** | Vail, CO | Create Rooftop Deck
- **St. Mary’s Medical Center Electrical Upgrades** | Grand Junction, CO | Structural Strengthening of Existing Hospital Structure
- **Enzian, A Destination by Hyatt Residence Structural Assessment and Repairs** | Vail, CO | 4 Story Condominium
- **Breakaway West Condominiums Elevated Walkway Replacement** | Vail, CO
- **St. Mary’s Medical Center Cardiovascular Addition** | Grand Junction, CO | Multiple Stories of New Patient Rooms, New Entrance Canopy, Elevated Mechanical Screen Wall
- **Summit High School Addition** | Breckenridge, CO | New Classrooms and Turf Field House
- **Red Sandstone Elementary School Renovation** | Vail, CO
- **Red Hill Elementary School Addition** | Gypsum, CO
- **Gypsum Creek Middle School Addition** | Gypsum, CO
- **Homestake Peak School Renovation** | Avon, CO
- **Battle Mountain High School Renovation** | Edwards, CO
- **Red Canyon High School Addition** | Edwards, CO
- **Aurora Recreation Center** | Aurora, CO | New Recreation Center
- **Highline Vail – A DoubleTree by Hilton Roof Repair and Addition** | Vail, CO
- **Louisville Recreation & Senior Center Addition** | Louisville, CO

- **Bruce McCandless Veterans Community Living Center at Florence Renovation** | Florence, CO
- **Northside Kitchen Restaurant Addition** | Avon, CO
- **Red Sandstone Parking Garage** | Vail, CO | Four Level Parking Garage
- **Colorado State University Western Slope Veterinary Diagnostic Laboratory** | Grand Junction, CO | New Educational Building
- **Condominium Repair** | Minturn, CO
- **Vail Public Works Buildings Structural Assessment and Master Plan** | Vail, CO
- **Residential Parking Garage Assessment and Memorialization** | Vail, CO
- **US Bank Renovation** | Vail, CO
- **Vail Christian High School Addition** | Edwards, CO
- **Pirateship Playground Renovation** | Vail, CO
- **Hotel Maverick** | Grand Junction, CO | Specialty Hotel for Hospitality Teaching at Colorado Mesa University
- **Slopeside Condominium Stair Replacement** | Keystone, CO
- **Eagle County Regional Airport Addition** | Gypsum, CO
- **Arrowhead Shores HOA Grading and Drainage Design** | Littleton, CO | Post Litigation Repair
- **Bergen Park Business Plaza Concrete Repair to Double Tee Framing** | Evergreen, CO
- **1600 Glenarm Place Concrete Repair** | Denver, CO
- **The Courtside at Arapahoe Lake HOA Deck Replacement** | Colorado Springs, CO
- **Driveway Replacement** | Colorado Springs, CO
- **Retaining Wall Replacement** | Colorado Springs, CO
- **The Residences at 2211 Camelback Property Condition Assessment** | Phoenix, AZ | 12 Story Condominium Building with Rooftop Pool
- **Wheeler House Property Condition Assessment** | Frisco, CO | 4 Story Condominium Building
- **Denver Community Church Property Condition Assessment** | Denver, CO | Historic Church Constructed in the Early 1900s
- **House of Rothschild Property Condition Assessment** | Denver, CO | Five Story Condominium Building
- **Cheesman Tower West Property Condition Assessment** | Denver, CO | Five Story Condominium Building
- **House Explosion Investigation** | Denver, CO | Collaborate with the City and County of Denver Arson Investigation Team to Safely Navigate the Investigation
- **Consultant for the Demolition of a Downtown Building** | Denver, CO
- **Egress Review for Building Code Compliance** | Denver, CO
- **Accessibility Review for Building Code Including ICC A117.1 Compliance** | Denver, CO
- **Commercial Architectural Review for Building Code Compliance** | Denver, CO
- **Commercial Structural Review for Building Code Compliance** | Denver, CO
- **Expert Opinion for Personal Injury from Noncompliant Path of Travel** | Greenwood Village, CO
- **Building Code Upgrade Analysis and Investigation** | Jefferson County, CO
- **Grand Junction High School Property Condition Assessment** | Grand Junction, CO

SELECT RESIDENTIAL EXPERIENCE

- **Foundation Repair** | Arrowhead Ski Area, Edwards, CO | Micropile Installation
- **New Custom Homes** | Throughout Colorado
- **Residential Structural Assessment** | Throughout Colorado
- **New Custom Row House** | Vail, CO | Demolition and Reconstruction of Two Townhouse Units
- **Townhouse Ice Dam Investigation and Repair** | Avon, CO
- **Foundation Reinforcement for Residence on Hill** | Avon, CO
- **Chimney Failure Investigation** | Colorado Springs, CO
- **Residential Fire Repairs** | Throughout Colorado
- **Repairs for Moisture Intrusion** | Colorado Springs, CO
- **Investigate Residences Adjacent to House Explosion** | Colorado City, CO
- **Investigation for Foundation Movement** | Las Vegas, NV
- **Investigation of Concrete Masonry Wall Movement** | Las Vegas, NV
- **Investigation of Landscaping and Pool for Code Compliance** | Colorado Springs, CO
- **Trip and Fall Egress Assessment** | Evergreen, CO
- **Pole Barn Investigation** | Westcliffe, CO
- **Residential Building Code Compliance Investigation** | Manitou Springs, CO
- **Drainage Investigation** | Colorado Springs, CO

TESTIMONY AND TRIAL HISTORY

- Arrowhead Shores Homeowners Association, Inc. vs. Roxborough Property Group, LLC; and Miles R. Grant | District Court - Douglas County, Colorado | Case Number 2020CV30977 | Grading & Drainage | Trial
- Emily Blake vs. MGS Investments, LLC and Mark G. Salas | District Court - El Paso County, Colorado | Case Number 2021CV30280 | Construction History | Deposition