

MICHAEL D. MCDOWELL, P.E.

PRINCIPAL ENGINEER



EDUCATION

M.S., Civil Engineering, 1999,
Brigham Young University

B.S., Civil/Environmental
Engineering, 1998, Brigham Young
University (Provo, UT)

REGISTRATIONS AND CERTIFICATIONS

PE 39613 (Arizona)

PE C64719 (California)

PE 40150 (Colorado)

PE 20387 (Kansas)

PE 18558 (New Mexico)

PE 104307 (Texas)

PE 368596-2202 (Utah)

PE 11451 (Wyoming)

NCEES Engineering Record and
International Registry - #31658

Council-Certified Microbial
Consultant CMC #0607105

EXPERIENCE HIGHLIGHTS

Construction Claims Analysis

Engineering Design

Expert Testimony

PROFESSIONAL AFFILIATIONS

American Academy of Forensic
Sciences

American Society of Civil Engineers

Colorado Association of
Geotechnical Engineers

National Academy of Forensic
Engineers

National Society of Professional
Engineers

PROFESSIONAL EXPERIENCE

Mr. McDowell is the Principal Engineer/Owner of MCD Professional Consulting, LLC (MCD). He has over 15 years of engineering experience in Colorado, Arizona, and California with construction experience dating back more than 20 years.

Mr. McDowell has performed numerous engineering evaluations on behalf of law firms, insurance companies, lending institutions, and commercial and residential property owners. Mr. McDowell has also provided engineering design and environmental consulting services to clients spanning the United States - with primary focus in the western United States.

Mr. McDowell has been retained as an expert witness/consulting engineer on hundreds of cases in the Western United States. His primary expertise is with civil/geotechnical issues. This experience includes construction defects related to expansive soils, grading and drainage, building foundations, retaining walls, concrete and asphalt pavement, and dry and wet utilities. Mr. McDowell has additional expertise in environmental matters, industrial hygiene, corrosive soil, sulfate/chloride issues, mold/water intrusion claims, and slip/trip and fall cases.

SELECT PROJECT EXPERIENCE

Mile High Business Center, Denver, Colorado: Senior engineer for a geotechnical evaluation to provide design and construction recommendations for a 256,000 square foot commercial building with associated parking lot pavement.

Rocky Mountain Arsenal National Wildlife Refuge, Colorado: Senior engineer for a geotechnical evaluation to provide design and construction recommendations for a new approximately 15,000 square foot visitor's center.

Frontier Academy, Brighton, Colorado: Senior engineer for a geotechnical evaluation to provide design and construction recommendations for an approximately 46,000 square foot one-story school.

Freddy's Frozen Custard, Aurora, Colorado: Senior engineer for a geotechnical evaluation to provide design and construction recommendations for an approximately 3,500 square foot restaurant and associated parking lot.

Las Animas County Building, Trinidad, Colorado: Senior engineer for a geotechnical evaluation to provide design and construction recommendations for the renovation of a historic county building that included micropile foundations.

Colorado School of Mines, Golden, Colorado: Senior engineer for a geotechnical evaluation to assess geotechnical conditions and to provide design and construction recommendations for an ADA ramp attached to the USGS Building.

Mira Vista Golf Course, Aurora, Colorado: Senior engineer for a geotechnical study to evaluate the geotechnical conditions at the site and provide design and construction recommendations for a 15-acre foot pond/drainage swale near Westerly Creek Dam.

Auto Dealership, Golden, Colorado: Senior engineer for a geotechnical evaluation to assess geotechnical conditions and to provide design and construction recommendations for a two-story commercial building with below ground parking.

Lake Capote Project, Archuleta County, Colorado: Senior engineer for the geotechnical design and construction parameters for a proposed leach field for the Southern Ute Indian Reservation.

Confidential Client, Grand Junction, Colorado: Retained as a geotechnical expert to provide testimony for a single-family residence which experienced post-construction movement as a result of soil movement triggered by allegedly improper grading and inadequately prepared fill soil.

SELECT PROJECT EXPERIENCE (cont.)

Edison Elementary, Denver, Colorado: Senior engineer for materials testing associated with improvements to Denver Public School project.

Highpointe at Hampden, Denver, Colorado: Principal engineer for preliminary site preparation involving backfill and soil compaction as well as preparation of a Phase II Environmental Site Assessment.

Confidential Client, Thornton, Colorado: Retained as an expert engineer to evaluate asphalt pavement performance within a residential subdivision.

Hotel and Resort, Telluride, Colorado: Coordinated a geotechnical study to evaluate and review the stability of shoring walls for a hotel resort. The evaluation included subsurface geotechnical exploration and laboratory testing as well as slope inclinometer and piezometers installations.

Confidential Client, Broomfield, Colorado: Retained as an expert geotechnical consultant to assess a multi-family residential development consisting of 71 structures founded on post-tensioned slabs.

Confidential Client, Boulder, Colorado: Retained as a geotechnical consultant to assess distress features in the basement of a single-family home.

Confidential Client, Littleton, Colorado: Retained as a geotechnical consultant to assess geotechnically-related distress features in the basement of a single-family home.

Confidential Commercial Property, Denver, Colorado: Retained as an expert consultant to evaluate distress associated with porous pavement in the parking lot of a commercial site.

Confidential Commercial Property, Pueblo, Colorado: Retained as an expert geotechnical consultant to evaluate distress associated with a 20-foot high retaining wall near a commercial site.

Confidential Client, Telluride/Mountain Village, Colorado: Retained as an expert geotechnical consultant to evaluate distress associated with a slope failure that occurred on the rear yard of a residential structure.

Confidential Client, Morrison, Colorado: Retained as an expert consultant to evaluate distress associated with concrete pavement in the driveway and patio of a single-family home.

Confidential Client, Conifer, Colorado: Retained as a geotechnical consultant to provide expert testimony for a homeowner on a case involving the construction of an elevated deck and rockery wall.

Confidential Client, Colorado Springs, Colorado: Retained as an expert geotechnical consultant to evaluate distress associated with a driveway and the front entry of a residential structure.

Confidential Home Builder, Littleton, Colorado: Retained as an expert geotechnical consultant for a residential home builder to perform a geotechnical study to evaluate observed distress in a single-family home reportedly associated with settlement/consolidation of on-site soils.

Confidential Home Builder, Castle Pines, Colorado: Retained as a geotechnical consultant to assess the construction of rockery wall constructed between multiple single-family homes.

Confidential Client, Golden, Colorado: Retained as an expert consultant to evaluate the cause of distress associated with flooring issues inside commercial medical structure.

Confidential Client, Denver, Colorado: Retained as an expert geotechnical consultant to evaluate the cause of distress associated with the settlement of a sewer line near a commercial structure.

Confidential Client, Lone Tree, Colorado: Retained as an expert geotechnical consultant for an owner to perform a geotechnical study to evaluate observed conditions in a multi-family complex.

Confidential Client, Longmont, Colorado: Retained as an expert consultant to evaluate distress associated with concrete sidewalks, driveways, and pavement associated with a multi-family complex.

Confidential Client, Lone Tree, Colorado: Retained as an expert geotechnical consultant for an engineer to provided repair recommendations to a distressed masonry fence.

Confidential Client, Evans, Colorado: Retained as an expert consultant to evaluate drainage issues associated with water damage to a basement in a single-family home.

Confidential Client, Ft. Lupton, Colorado: Retained as an expert consultant to evaluate water drainage associated with an easement and associated water damage to a single-family residential basement.

SELECT PROJECT EXPERIENCE (cont.)

Confidential Client, Castle Rock, Colorado: Retained as an expert geotechnical consultant to evaluate distress associated with concrete sidewalks, driveways, and rockery retaining walls associated with a multi-family complex.

Confidential Client, Aurora, Colorado: Retained as an expert consultant to evaluate distress to concrete flatwork within a multi-family complex.

Confidential Client, Pueblo County, Colorado: Retained as an expert geotechnical consultant to evaluate distress to a foundation, garage, and basement slab related to expansive soil.

Confidential Property, Adams County, Colorado: Retained as an expert consultant to evaluate issues associated with mercury in rubberized gymnasium flooring and dust generated during remodeling activities.

Confidential Hotel, Englewood, Colorado: Performed a moisture assessment to evaluate the extent and cause of water damage and microbial growth as part of an insurance claim evaluation.

Southern Delivery System, Highway 115, El Paso County, Colorado: Senior engineer for a geophysical survey that provided an evaluation of rippability using seismic refraction geophysical techniques. The evaluation covered a portion of the proposed alignment of a 66-inch diameter pipeline from the Arkansas River.

Pueblo Dam, Pueblo, Colorado: Senior engineer for a geophysical evaluation involving soil resistivity surveys for the proposed alignment of a large diameter water pipeline that extends from near the Arkansas River to near Colorado Springs.

Highway 85 Pipeline Alignment, Adams County, Colorado: Senior engineer for a geotechnical evaluation of an approximately 2-mile long oil pipeline alignment in Commerce City. The proposed oil pipeline alignment included directional drilling sites along Highway 85 and extended from Highway 270 to 69th Avenue.

Apartment Complex, Denver, Colorado: Provided quality assurance and industrial hygiene consulting services as part of a moisture and microbial remediation insurance claim. The abatement of water-damaged building materials also involved abatement of asbestos containing building materials within 29 units.

Commercial Stores, Denver, Colorado: Prepared four Phase I and Phase II Environmental Site Assessment reports that identified a former dry cleaner as a recognized environmental concern for an adjacent property. Additional assessment noted elevated concentrations of chlorinated solvents in the soil vapor under some of the building slabs.

Grocery Store, Boulder, Colorado: Provided review of a Phase I Environmental Site Assessment that identified a former dry cleaner as a recognized environmental concern for an adjacent property. Additional assessment noted elevated concentrations of tetrachloroethylene (PCE) in the soil vapor under the building slab. Monitored volatile organic compound (VOC) concentrations at the soil/indoor air interface and in the breathing zone during remodeling and remediation activities.

Machine Shop, Englewood, Colorado: Performed personal air sampling to simulate workers who may be regularly exposed to boiler vapor and documented site conditions as part of an insurance claim. Air sampling results were evaluated and compared with the Threshold Limit Value Time-Weighted Average promulgated by the ACGIH.

Aerospace Facilities, Denver and Aurora, Colorado: Provided environmental consulting services for the shell deactivation of two aerospace manufacturing facilities in Denver and Aurora, Colorado. Site environmental files, operational records, and permits were reviewed and evaluated. Coordinated with site personnel to clean and remove equipment, provided regulatory guidance for the disposal of hazardous wastes and closure of existing permits, and documented shell deactivation efforts.

Proposed Wal-Mart Stores, Denver/Littleton/Centennial Colorado: Performed Phase II ESAs for three proposed Wal-Mart store locations (Denver, Littleton, and Centennial, Colorado). Performed soil, groundwater, and indoor air sampling at multiple locations.

FE Warren Air Force Base, Cheyenne, Wyoming: Senior engineer for a geotechnical study to evaluate geotechnical conditions at the site and provide pavement design and construction recommendations for Gate 1, Gate 2, Gate 5 and a Recycle Center.

Confidential Client, Scottsbluff, Nebraska: Retained as an expert geotechnical consultant to evaluate alleged distress associated with a 350,000 square foot concrete parking lot.

Confidential Client, Sheridan, Wyoming: Evaluated alleged damage to a structure caused by ground-shaking and nearby roadway construction.

Confidential Client, Weston County, Wyoming: Evaluated geotechnical conditions and allegations of associated structural movement associated with a water leak.

SELECT PROJECT EXPERIENCE (cont.)

Confidential Client, Phoenix, Arizona: Geotechnical engineering consultant retained to assess the cause of alleged distress at six single-family residences and to provide repair recommendations as part of a litigated matter.

Confidential Client, Mesa, Arizona: Geotechnical engineering consultant retained to assess the cause of alleged distress and foundation movement on multiple single-family residences as part of a litigated matter.

Confidential Client, Gilbert, Arizona: Geotechnical engineering consultant retained to assess the cause of alleged distress and foundation movement on numerous single-family residences as part of a class-action lawsuit.

Confidential Client, Scottsdale, Arizona: Engineering consultant retained to assess moisture migration and resultant building material damage as part of an insurance claim.

Confidential Client, Gilbert, Arizona: Geotechnical engineering consultant retained to assess the cause of alleged distress and foundation movement on a single-family residence as part of a litigated matter.

Confidential Client, Glendale, Arizona: Geotechnical engineering consultant retained to assess the cause of alleged distress and foundation movement on a single-family residence as part of a litigated matter.

Confidential Client, Tucson, Arizona: Geotechnical engineering consultant retained to assess the cause of alleged distress and foundation movement on a single-family residence as part of a litigated matter.

Confidential Client, Sun City West, Arizona: Geotechnical engineering consultant retained to assess the cause of alleged distress and to provide repair recommendations on a single-family residence.

Confidential Client, Prescott Valley, Arizona: Geotechnical engineering consultant retained to assess the cause of alleged distress on a single-family residence.

Phoenix-Goodyear Airport South Superfund Site Remediation, Phoenix, Arizona: Engineer for the oversight of a groundwater air sparging and soil vapor extraction system. Coordinated groundwater measurements and sampling from multiple wells to accelerate remediation of the affected groundwater at the site.

Private Residence, Tucson, Arizona: Performed a review of available data for a moisture claim and repair as part of a litigated matter. Prepared an expert report with opinions regarding the standard-of-care exercised by the remediation contractor.

Fire Station, Heber, Arizona: Performed microbial assessment of building materials to assess the cause-and-effect relationship between reported moisture damage and observed mold growth as part of an insurance claim.

Commercial Property, Phoenix, Arizona: Performed microbial indoor air assessment of a multi-story commercial property. The assessment was conducted to evaluate the extent of residual microbial contamination within the structures after the removal/repair of water-damaged building materials.

Resort Conference Center and Casino, Prescott, Arizona: Performed air/interstitial wall sampling in several units and common areas and collected tape lifts and bulk samples to supplement the air sampling information and to further quantify the type and extent of impact. Prepared a report summarizing the analytical data with recommendations for remedial actions.

Private Residence, Chandler, Arizona: Performed preliminary assessment of indoor air quality of a private residence for the purposes of assessing concentrations of ammonia and carbon monoxide associated with building materials used in the construction of the home.

Multi-tenant Residential Property, Mesa, Arizona: Performed a moisture and microbial assessment of 35 units in a 288 unit apartment complex. Air sampling and interstitial wall sampling was conducted in multiple units to assess airborne microbial contamination within the walls. Prepared a report summarizing the analytical data with recommendations for remedial action.

Private Residences, Tucson, Scottsdale, and Mesa, Arizona: Performed microbial indoor air assessments. The assessments were conducted to evaluate the extent of residual microbial contamination within the structures after the removal/repair of water-damaged building materials.

Former Motorola Semiconductor Plant, Mesa, Arizona: Project manager/health and safety officer for demolition oversight and environmental quality assurance in support of the demolition of the former Motorola Semiconductor Plant. Oversaw the removal of multiple USTs, provided quality assurance of asbestos abatement and demolition of buildings, reviewed hazardous waste manifests, performed air monitoring, performed drilling and sampling activities, collected samples for laboratory analyses as necessary, abandoned drywells and monitoring wells, advised the client on regulatory requirements, and prepared client reports.

SELECT PROJECT EXPERIENCE (cont.)

Confidential Client, Albuquerque, New Mexico: Retained as an expert geotechnical consultant to assess alleged utility pipe settlement at twenty separate single-family residences.

Confidential Client, Farmington, New Mexico: Retained as an expert geotechnical consultant to assess the cause of foundation settlement on multiple single-family residences and to provide repair recommendations to stabilize the foundation.

Cannon Air Force Base, Clovis, New Mexico: Senior engineer for a geotechnical evaluation for the proposed guardhouse and associated new pavement near the existing South Gate at the Cannon AFB in Clovis, New Mexico.

Cannon Air Force Base, C-130 Hangar, Clovis, New Mexico: Senior engineer for earthwork observation, construction and materials testing, on-site laboratory testing, floor flatness testing, and quality control.

Confidential Client, Albuquerque, New Mexico: Retained as an expert geotechnical consultant to assess allegations of soil movement at seven separate single-family residences.

Confidential Client, Various Sites, New Mexico: Retained to provide engineering review and certification for Stormwater Pollution Prevention Plans (SWPPP) and Spill Prevention Control and Countermeasure (SPCC) Plans in Albuquerque, Santa Fe, Bernalillo, Las Lunas, Edgewood, Pena Blanca, Rio Rancho, Tijeras, and Vado, New Mexico.

Abengoa/Mojave Solar Field Project, Mojave, California: Engineer-of-record for foundation design of helical and micropile foundations for a multi-billion dollar solar field project.

3M, RCRA Tank Assessment, Northridge, California: Engineer for the integrity assessment of hazardous waste tanks performed in accordance with California Code of Regulations Title 22.

Boeing C-6 Site Redevelopment, Torrance, California: Maintained operation of two multi-well vapor extraction systems and completed mass removal calculations at the Boeing C-6 site. Wrote quarterly vapor extraction monitoring reports and optimized system performance for the removal of trichloroethylene and other chlorinated solvents. Prepared the Closure Report for the Los Angeles Region Water Quality Control Board after the vapor extraction objectives were met.

Coltec Site Remediation, Burbank, California: Oversaw analysis and implementation of multiple groundwater treatment systems for the removal of hexavalent chrome, chloride, arsenic and solids. These systems included reverse osmosis, ion exchange, and off-site disposal. Wrote regulatory reports for the performance of the groundwater treatment and soil vapor extraction systems. Performed financial analysis for each of the proposed systems at the Coltec site.

Caltrans Erosion Control Pilot Study, San Diego, California: Outlined current designs and policies regarding bridge design, landscaping, and highway design with respect to erosion control measures. Suggestions were made to improve current Caltrans policies.

BF Goodrich, Chula Vista, California: Oversaw demolition, excavation, classification of contaminated soil and interior redevelopment of Building 1. Conducted seasonal storm water sampling as part of regulatory compliance to the Regional Water Quality Control Board.

South Bay Water Reclamation Plant, San Diego, California: Calculated hydraulic head loss values and assisted in composing the Operations and Maintenance Manual for the South Bay Water Reclamation Plant.

Former General Dynamics Facility, San Diego, California: Performed a Phase I ESA and completed a thorough literature review of past environmental impacts and remediation activities.

French Camp Grain Elevator, French Camp, California: Performed a cost analysis of groundwater remediation alternatives. Designed a structural slab capable of withstanding seismic loading on proposed groundwater treatment system.

El Sobrante Landfill Design, El Sobrante, California: Completed a hydrologic assessment of the El Sobrante landfill using Win UnSatH program to verify the suitability of various landfill designs.

Northrop Grumman, Hawthorne, California: Conducted bi-annual groundwater monitoring of approximately 140 monitoring wells. Assisted with regulatory reporting of concentrations of volatile organic compounds, metals, and jet fuel free product.

Levinson Estate Properties, Compton, California: Performed a Focused Feasibility Evaluation of remedial alternatives and cost analyses. Calculated soil screening levels at various depths based on vapor migration, dermal exposure and threat to groundwater. Wrote two shallow soil remediation implementation plans for the site based on different soil screening criteria. Prepared quarterly SVE reports and oversaw the optimization of the SVE system.

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TESTIMONY EXPERIENCE:

01/19/2009 – **Deposition** - Hogan v. George v. Evergreen Earthworks Construction, LLC, Alliance Real Estate Services, LLC and Alice Carmody, Jefferson County, CO, Case 07-CV-6520.

02/05/2009 – **Trial** - Hogan v. George v. Evergreen Earthworks Construction, LLC, Alliance Real Estate Services, LLC and Alice Carmody, Jefferson County, CO, Case 07-CV-6520.

08/04/2009 – **Deposition** - Stephen C. Ross v. W. Wayne Huff Architect, Golden Bear Builders, and Daniel C. Jaeger, San Miguel County, CO, Case 07-CV-79.

01/22/2010 – **Deposition** - Villas at Ute Creek HOA v. Ute Creek Villas, LLC, Boulder County, CO, Case 08-CV-1141.

05/13/2010 – **Deposition** – Pomeroy v. Greenhorn Builders, Pueblo County, CO, Case 2009-CV-146.

06/03/2010 – **Deposition** – The Neenan Company v. Resource Colorado v. Interface, Inc. (Golden Ridge Surgery Center), Jefferson County, CO, Case 07-CV-6604.

10/25/2010 – **Arbitration** – Pomeroy v. Greenhorn Builders, Pueblo County, CO, Case 2009-CV-146.

11/08/2011 – **Deposition** – Aurora Loan Services, LLC v. Panattoni Development Company, LLC., City and County of Denver, CO, Case 2010-CV-5218.

01/18/2012 – **Deposition** – Hampden Terrace Owners Association v. Colorado Development Company et al, Arapahoe County, CO, Case 2008-CV-1794.

01/20/2012 – **Deposition** – Heritage Todd Creek Metropolitan District v. American Infrastructure Inc. et al, Adams County, CO, Case 2010-CV-1577.

04/12/2012 – **Trial** – Muirfield at Lone Tree Homeowners Association v. Summit Investments, Inc., Masters Homes, and Baljit Nanda, Douglas County, CO, Case 2011-CV-1178.

06/28/2012 – **Deposition** – Carroll v. Hughes (d/b/a Mondo Builders) v. Frank Power Construction, Mesa County, CO, Case 2011-CV-4022.

08/09/2012 – **Deposition** – Ranch Creek Villas Homeowners Association v. Ranch Creek Villas, LLC, Adams County, CO, Case 2011-CV-985.

09/13/2012 – **Deposition** – James R. Gongaware and Liberty Mutual Fire Insurance Company v. Ferrellgas, Inc. et al, United States District Court, District of Colorado, Civil Action No. 11-CV-03257-REB-BNB.

12/07/2012 – **Deposition** – Panattoni Development Company, LLC v. All City Glass, et al. (Aurora Loan), Nebraska, American Arbitration Association, Case No. 57 110 00090 11.

02/28/2013 – **Deposition** – Villas Summit Development, LLC v. Lacy Construction et al, Eagle County, CO, Case No. 2011-CV-588.

05/09/2013 – **Deposition** – D.R. Horton, Inc. – d/b/a Trimark Communities v. K.L.G. Corporation and Terracon Consultants, Inc. (Skyline Estates), Jefferson County, CO, Case 10-CV-677.

06/11/2013 – **Deposition** – Okland Construction Company, Inc. v. The Phoenix Insurance Company et al. (Rivergate Lofts) United States District Court, District of Colorado, Case 11-CV-02652-LTB.

06/13/2013 – **Deposition** – Bolton et al. v. Pulte Home Corporation (Festival Foothills), Maricopa County, AZ, AAA Case No. 76-436-00037-12 HIIB.

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TESTIMONY EXPERIENCE:

08/21/2013 – **Deposition** – Sand Creek Villas Community Assoc. v. Pulte Home Corporation, El Paso County, CO, JAG File No. 2011-1485A.

08/25/2014 – **Deposition** – Lennar v. A-1 Truss Systems et al (Lakeshore at Centerra), City and County of Denver, CO, Case No. 2012CV6736.

09/18/2014 – **Deposition** – Shadow Canyon Condo Assoc. v. Shadow Canyon Development et al, Douglas County, CO, Case No. 2012CV811.

11/20/2014 – **Deposition** – Taylor Morrison v. Terracon Consultants, Inc., Adams County, CO, Case No. 2010CV2032.

01/28/2015 – **Trial** – Taylor Morrison v. Terracon Consultants, Inc., Adams County, CO, Case No. 2010CV2032.

10/21/2015 – **Deposition** – Ann Brewster v. RJB Development et al., Summit County, CO, Case No. 14CV30083.

11/17/2015 and 12/04/15 – **Deposition** – Broomfield Co Senior Living Owner v. R.G. Brinkmann Company et al., Broomfield County, CO, Case No. 2014CV30139.

03/25/2016 – **Deposition** – Tresor Investments v. True Performance Builders et al., Maricopa County, AZ, Case No. 2013-055188.

09/28/2016 – **Deposition** – LaGrange Condominium Association v. Carl Glaser et al., Fort Collins, CO, JAMS Denver Case No. 17960.

10/19/2016 – **Deposition** – Gaines Family Partnership, LLP v. Quality Pipe Services, Inc., City and County of Denver, CO, Case No. 2015CV33819.

11/18/2016 – **Arbitration** – LaGrange Condominium Association v. Carl Glaser et al., Fort Collins, CO, JAMS Denver Case No. 17960.

01/25/17 – **Trial** – Michael McGuire v. Gene Hermanski., District Court of Adams County, Colorado Case No. 16CV30156.

02/09/17 – **Mediation** – Tresana Townhome Association v. Shea Homes., Douglas County Colorado.

03/08/2017 – **Deposition** – Franklin Tower Lofts Condo Association v. Hershey Construction et al., City and County of Denver, CO, Case No. 2015CV33603.

06/12/2017 – **Deposition** – Paradise Villas v. Vision Development et al., El Paso County, Colorado, Case No. 2015CV32393.

09/22/2017 – **Deposition** – Morgan's Run Homeowner's Association v. TBL Excavating et al., Douglas County, Colorado, Case No. 2015CV30516.

12/11/2017 – **Deposition** – Parra v. Gillaspie Construction and Johnson Excavation, Routt County, Colorado, Case No. 2016CV30144

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PROFESSIONAL WORK HISTORY:

MCD Professional Consulting, LLC (Colorado and Arizona) – May 2011 to Current, Principal Engineer and President

Ninyo & Moore (Denver, CO) - October 2006 to May 2011, Principal Engineer and Office Manager

Ninyo & Moore (Phoenix, AZ) - March 2003 to October 2006, Senior Staff / Project / Senior Project Engineer

Haley & Aldrich (San Diego, CA) - February 2001 to March 2003, Senior Staff Engineer

Dames & Moore / URS (San Diego, CA) - January 2000 to February 2001, Engineer

OTHER RELEVANT WORK HISTORY

Colorado Department of Public Health & Environment (Denver, CO) - May 1999 to October 1999, Engineering Intern

CTL / Thompson (Denver, CO) - May 1997 to August 1997, Construction Materials Testing, Field Technician

Framing/Roofing Subcontractor (Boulder, CO) - Summer of 1992 and 1993

PUBLICATIONS/PAPERS:

“Why Engineers are Named in Construction Defect Lawsuits: When conflicts arise between the Building Code, engineering judgment and common sense” Presentation at the Annual Conference for the American Academy of Forensic Sciences (AAFS), Engineering Sciences Technical Session (New Orleans, Louisiana), February 2017.

“The Expansive Nature of Collapsible Soils and Other Engineering Oddities: An engineering perspective when case studies do not match scientific predictions” Presentation at the Annual Conference for the AAFS, Engineering Sciences Technical Session (Las Vegas, Nevada), February 2016.

“Forensic Engineering Evaluations of Underground Gas Leaks: Residential Explosions involving Marijuana Grow Operations in Colorado” Presentation at the Annual Conference for the AAFS, Engineering Sciences Technical Session (Orlando, Florida), February 2015.

“Adaptations in Foundation Design: Have Improvements Occurred Through Science or Litigation?” Presentation at the Annual Conference for the AAFS, Engineering Sciences Technical Session (Seattle, Washington), February 2014.

“Construction Defects Resulting in Threats to Human Health and Unanticipated Expenses – Case Studies from the Ground Up” Presentation at the Annual Conference for the AAFS, Engineering Sciences Technical Session (Seattle, Washington), February 2006.

“Got Cracks? Identifying and Preventing Damage Caused by Soils Movement” Presentation at the Annual Conference for the AAFS, Engineering Sciences Technical Session (New Orleans, Louisiana), February 2005.

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SELECTED PROFESSIONAL COURSES and SEMINARS (POST-GRADUATE):

Standards of Professional Conduct for Civil Engineers – PDH Direct - 2 hr. online with exam, October 31, 2017

Ethics NSPE – PDH Direct - 2 hr. online with exam, October 31, 2017

ADA Standards for Accessible Design – PDH Direct – 8 hr. online with exam, August 10, 2017

Contract Review: Key Provision – Raising the Bar, XL Group Insurance – 1 hr. (online with exam), August 7, 2017

Helical Design: Code Compliance and Effects of Seismic Activity – V-1 Education - 1 hr. online, March 1, 2017

Storm Water Management Alternatives for Small Commercial Sites - American Society of Civil Engineers (ASCE) (AWI120810) - 1 hr. online with exam, December 31, 2016

Construction Manager/General Contractor (CM/GC) Contracting in Transportation Infrastructure Programs – ASCE (AWI120513) – 1 hr. online with exam, December 28, 2016

Petrographic Analysis of Concrete Deterioration – ASCE – (AWI091913) – 1 hr. online with exam, December 26, 2016

Changes to Nonbuilding Structures Provisions in ASCE 7-10 – ASCE (AWI042611) – 1 hr. online with exam, December 28, 2016

Contract Review Focus on Liability, XL Group Insurance – 1 hr. (online with exam), September 1, 2016

Seminar on Unsaturated Soils - Colorado Association of Geotechnical Engineers (CAGE) –5.5 hrs – seminar covered unsaturated soil mechanics, depth of wetting and heave, level surveys, etc. (Lakewood, Colorado), April 1, 2016.

Unsaturated Soil Mechanics in the Laboratory: Measuring Suction and the Soil-Water Characteristics - American Society of Civil Engineers (ASCE) - (AWI050911) - 1 hr. (online with exam), December 31, 2015

Structural Building Condition Surveys: Looking for Trouble - (ASCE) (AWI012612) – 1 hr. (online with exam), December 30, 2015

Professional Ethics in the 21st Century – American Council of Engineering Companies (ACEC) & ASCE – 4.0 hrs (Greenwood Village, Colorado), December 3, 2015

Lessons in Professional Liability, XL Group Insurance – 4 hrs. (online with exam), July 16, 2015

Underpinning and Strengthening of Foundations - ASCE – 2 hrs. (online with exam), May 4, 2015

OSHA: Hazards of Trenching and Shoring – PDH Central – 1 hr. (online with exam), May 4, 2015

Earthwork (AWI011013) - ASCE – 1 hr. (online with exam), March 5, 2015

Contract Basics for Design Professionals, XL Group Insurance – 1 hr. (online), May 28, 2014

Soil Nailing and Ground Anchor Wall Seminar - CAGE – 6.0 hrs – seminar covered wall construction and design, inspection and construction monitoring (Denver, Colorado), March 28, 2014.

Allocation of Responsibility for Construction Defects, Webinar/Pete Fowler – 1.0 hrs, December 18, 2013

Ethics for Forensic Engineering Practice - ACEC & ASCE – 4.0 hrs (Denver, Colorado), December 13, 2013

Earth Retaining Seminar - CAGE– 6.5 hrs – seminar covered wall classification, geotechnical parameters for design and construction, lateral earth pressures, MSE walls, externally stabilized walls, ground anchors and soil nailing, and post-construction monitoring (Lakewood, Colorado), October 4, 2013.

Engineering Standard of Care Presentation, CAGE – 1.0 hr – (Lakewood, Colorado), March 13, 2013

Non-Destructive Testing and Evaluation of Foundation Elements - CAGE and Structural Engineers Association of Colorado (SEAC) – 1.5 hrs – (Denver, Colorado), January 17, 2013.

Soils and Geology Procedures for Foundation Design of Buildings and Other Structures, Failure & Damage Analysis, Inc. – 20 hrs (online course with test), September 10, 2012.

Comprehensive Review of Industrial Hygiene, University of Utah - 40 hrs – (Salt Lake City, Utah), August 14-18, 2006.